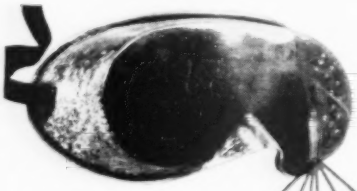
PERSONNEL MANAGEMENT
WELFARE & INDUSTRIAL EQUIPMENT

The Journal devoted to increasing Production through Better Management of Men and Machines

DECEMBER, 1952 1s. 6d.

Training Schemes for Juniors

"PANORAMA" Regd. for 1953



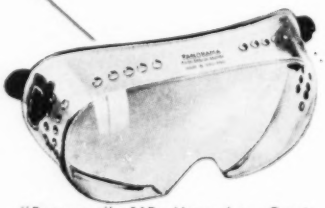
NOW—Get permanent protection against all eye, face, and head injuries—don't wait until it happens before investigating these "*Panorama*" Safety Devices.

Used by factories throughout the world, "*Panorama*" All-purpose Goggles are carefully designed to give complete protection against all industrial hazards. Acceptable to workers because of their attractive appearance, very light weight (¾ oz.) and perfect all-round vision. "*Panorama*" Goggles are completely free from distortion, and because of the variations in the ventilating system on all models will not mist. They are designed to be worn if required over spectacles, and can also be worn for many hours at a stretch. Varied models make "*Panorama*" adaptable for many industrial operations requiring complete and safe eye protection.

This "*Panorama*" Goggle model 212 saved a man's sight in a chemical explosion. He was seriously injured, but through wearing "*Panorama*" he avoided what could have been a serious eye injury.

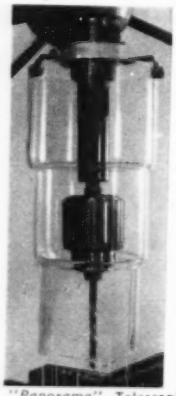
"*Panorama*" 215 All-purpose Safety Goggle. Crystal clear or green, complete vision, complete protection for general work where light protection is required.

"*Panorama*" 218 Chemical and Multi-purpose Goggle. Moulded from fine-quality rubber with removable acetate windows, perfect ventilation with acetate filters allowing full flow of air but keeping out all acids and dust. Wide vision, perfect ventilation, fits everyone, and can be worn over ordinary spectacles. Green or amber anti-glare windows also available.



"*Panorama*" 217 Heavy-duty Goggle. Sturdily constructed and designed for work of a heavy nature where extra protection is needed. Recommended for foundries and steel works.

"*Panorama*" 216A Furnace Inspection and Gas Welding Goggle. B.S. 679: 1947. G.W.2.—Shade No. 4 (green). The perfect goggle for furnace inspection, certain gas welding operations, and recommended for welders' mates.



"*Panorama*" Telescopic Drill Guard No. 205D. Simple to assemble, will give complete protection and full view of operation. Recommended for repetition work. Can be used on a variety of small drilling machines.

"*Panorama*" P.V.C. Safety Helmet. Complete all-round protection, weighs 12 oz. Black, brown, red, and white. Has passed B.S. Specifications. Adjustable fine leather harness. One size fits everyone. Recommended for all operations where head protection is necessary.

"*Panorama*" Face Shield No. 204C. Crystal clear lightweight "Perspex." Moulded in one piece incorporating the "*Panorama*" Goggle, no heavy head harness, comfortable to wear, and giving complete face and neck protection. Also available in green or blue anti-glare shades.

Also available from Industrial Guarding Equipment Ltd.
Mill Works, Alvechurch, Birmingham

STRATFORD PRODUCTS SAFETY SERVICE CO., LTD
"Panorama House," 53, Old Kent Road London, S.E.1
Tel: BERmondsey 3349/4192 · 'Grams: Kustow, London

Industrial lighting is a matter for the specialist *

Although your lighting problems are best known to yourself, the solution of them is a matter for the lighting engineer, who alone can overcome the difficulties efficiently and economically. Good light increases production, reduces fatigue, risk of accidents and cuts lighting bills; but the desired results can only be achieved by correct distribution of illumination and the elimination of waste, both matters calling for specialised knowledge. Let Falks lighting engineers study your needs and make practical recommendations. Falks Industrial Lighting Service covers every aspect of the question, from the scientific design of reflectors to the blueprinting of a layout for an entire works. The range of standard fittings made by Falks meets practically every lighting requirement.
Write or telephone our Technical Department, who will gladly advise you without obligation.

FALKS
FALK, STADELMANN & CO. LTD

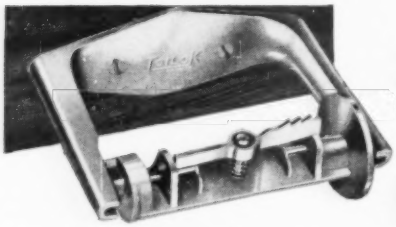
* *Consult FALKS on Industrial Lighting*

91, Farringdon Road, London, E.C.1 & Branches

Telephone Number: HOLborn 7654

89.550A

THOUSANDS OF TOILOKS NOW IN USE



Here is a positive way of saving money as industry after industry has found and proved by the number of repeat orders that are continually being received.

1. The sheet tears easily but does not unroll, thus preventing wastage.

2. The roll swings backwards far enough to release another sheet.

3. The toilet roll cannot be removed, but remains free to revolve.

Releases only ONE PIECE at a time

Available in hard gloss enamel finish of Cream, White or Pastel Green.
Toilok Medicated 7 oz. rolls also available, but Holder takes all good makes of Toilet Rolls.

WRITE FOR FULL DETAILS

SAVE UP TO 60% BY INSTALLING

- Hygienic — prevents unsightly wastage on floor.
- Releases only one piece at a time.
- Reduces toilet roll expenditure by 60%
- Prevents petty thieving of new rolls.

Manufacturers & Distributors:

R. SCULTHORP & CO LTD

(Dept. 1), BLACKFRIARS HOUSE, NEW BRIDGE ST. LONDON E.C.4 CENtral 1812/3

TOILOK
REGD TRADE MARK

THE ONE PIECE AT A TIME TOILET ROLL HOLDER

We are exhibiting at the Building Centre, Store Street, Tottenham Court Road, W.C.1

GARROULD'S

Established over 100 years

Actual Manufacturers

of

WHITE AND COLOURED DRILL OVERALLS

for WOMEN

AND

MEN'S COATS AND JACKETS

All garments are cut on generous lines and the workmanship throughout is of the highest standard. The materials used are "Sanforized" and will launder extremely well.
We also manufacture Chefs' Caps, Waitresses' Caps and Aprons, etc. etc.
Prompt attention given to every enquiry. Full particulars and prices from:

E. & R. GARROULD LTD.

150-160 EDGWARE ROAD · LONDON W.2

For Cleaning Up

STERGENE *is soapless and a wonderful grease remover. A teaspoonful in a bucket of water is enough for general cleaning, so it is truly economical.*

DOMESTOS *is a hypochlorite with all the disinfectant properties which would be expected of a product twenty times stronger than carbolic acid. Very small quantities are sufficient to ensure scrupulous cleanliness—particularly in lavatories and toilets.*

When Domestos and Stergene are made available other cleansing materials are unnecessary. Domestos and Stergene between them fulfil every cleansing need from dish washing in the canteen (and how china sparkles when washed with Stergene) to swabbing factory floors.

DOMESTOS and STERGENE

MAKE LIFE CLEANER

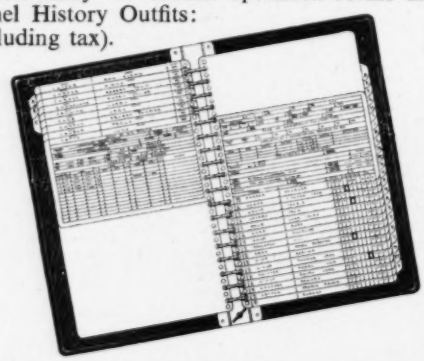
Full particulars about Domestos and Stergene can be obtained from
DOMESTOS LIMITED, INDUSTRIAL DIVISION, COLLEGE WORKS, NEWCASTLE UPON TYNE, 6.

D.S.11

OFFICE AND FACTORY

Personnel Records

Staff records, in Visible Record Binders, yield accurate and valuable information—may we submit specimen forms and details of Personnel History Outfits: from **£5. 6. 5.** (including tax).



Twinlock
REGISTERED TRADE MARK
VISIBLE RECORD SYSTEMS

Full details from: **PERCY JONES (Twinlock) LTD.,**
37 CHANCERY LANE · LONDON · W.C.2. *'Phone CHAncery 8971*
Supplies obtainable only through the Stationery, Printing and Office Equipment Trades.

Some MEN *don't seem to understand*

the importance of the welfare side from
THE WOMAN'S ANGLE

By the simple depression of a lever THE BARRYWALD SANITARY INCINERATOR will automatically and effectively destroy sanitary towels, surgical dressings, documents, etc., solving a vital and major welfare problem in FACTORIES, OFFICES, INSTITUTIONS, etc.

Δ THE ONLY INCINERATOR INCORPORATING OUR PATENTED SAFETY DEVICES

The BARRYWALD REGD.

Safety Automatic Incinerator

Pat. Nos. 555062-621085 and corresponding Foreign Patents

Awarded the certificate of the Royal Institute of Public Health and Hygiene

Supplied to:—

Dunlop Rubber Co. Ltd.
Vickers Armstrong Ltd.
Shellmex & B.P. Ltd.
Ford Motor Co. Ltd.
Ever-Ready Co. Ltd.
Short Bros. Ltd.
Jowett Cars Ltd.
Fodens Ltd.
Hoover Ltd.
I.C.I. Ltd.
National Cash Register Co. Ltd.
Lever Bros. and Unilever Ltd.
Singer Manufacturing Co. Ltd.
Monotype Corporation Ltd.
Monsanto Chemicals Ltd., etc.

ECONOMICAL EFFICIENT
FOOLPROOF INDISPENSABLE

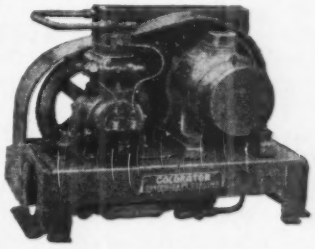
SANIGUARD APPLIANCES *Limited*
62, LONDON WALL, LONDON, E.C.2.
Telephones: MONARCH 4922 - 4923 *DIVISION OF ALLIED METALS LTD.*

—and Coldrator condensing units are very quiet in operation

The three essentials of a refrigerating plant are the condensing unit, the cooling system and the cold chamber. Of these, the condensing unit is by far the most important: every hour of every day, year in, year out, it is called upon to perform its duty without attention

Coldrator units are able to do this with plenty of power in hand. They have great mechanical strength; automatic lubrication to all moving parts; reliability; quietness; low running costs and high operating efficiency

Write for the Coldrator folder 'The safe handling of food'



In refrigeration COLDRATOR stands alone

INTERNATIONAL REFRIGERATOR COMPANY LIMITED PETERBOROUGH ENGLAND Member of the A.E.I. group of companies

Green's of BRIGHTON

BRITISH FOOD PRODUCTS OF QUALITY

FOR

CANTEEN CATERING

BLANC MANGE POWDERS

CUSTARD POWDER

CORNFLOUR

BAKING POWDER

SPONGE CAKE & PUDDING MIXTURE (Unsweetened)

YORKSHIRE PUDDING, PANCAKE & FRITTER MIXTURE (No eggs required)

ROASTEX (Gravy Powder)

DESSERT GELATINE UNSWEETENED

GOLDEN RAISING POWDER

CULINARY HERBS

Packed in special bulk quantities by GREEN'S of BRIGHTON
Manufacturers of the Original Green's Sponge Mixture

Contractors to H.M. Government, County Councils, Institutions, etc.
Samples are available on application to:

H. J. GREEN & CO. LTD
BULK SALES DEPT.
BRIGHTON

BRIGHTON H.J. GREEN & Co. Ltd ENGLAND

G1843

PROTECTIVE CLOTHING

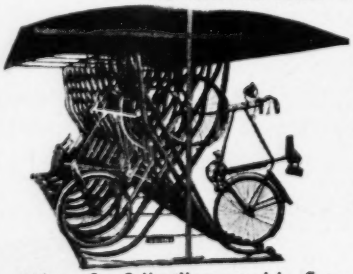
For protective clothing of every description consult Charles Baker.
OVERALLS, LONG COATS, APRONS, JACKETS, HEADWEAR.
Should you desire an order made to your own specification, write or call Charles Baker today, you will receive the prompt attention of our service.
Send for our new, fully illustrated catalogue, sent post free on request to Dept. P.M.10

Charles Baker & Co. Ltd.

137-138 TOTTENHAM COURT ROAD
LONDON, W.1
Telephone: EUSton 4721/3

PARK YOUR CYCLES THE ODONI WAY

(REGD. TRADE MARK)
With Odoni Patent "All-Steel"
BICYCLE STANDS
Types to suit all possible requirements
SINGLE OR DOUBLE-SIDED, HORIZONTAL OR SEMI-VERTICAL
For Indoor and Outdoor use.



TYPE 10
DOUBLE SIDED SEMI-VERTICAL OUTDOOR STAND, BUILT WITH CLOSE RACK ARRANGEMENT (CYCLES AT 12" CENTRES)

Write for fully illustrated leaflet and price list to Sole manufacturers and Patentees.

ALFRED A. ODONI AND CO. LTD.
404-5 SALISBURY HOUSE, FINSBURY CIRCUS
LONDON, E.C.2
Tel. No.: MONarch 8638/9 (WORKS: LONDON, N.W.) Tel. Add.: Odoni Ave., London

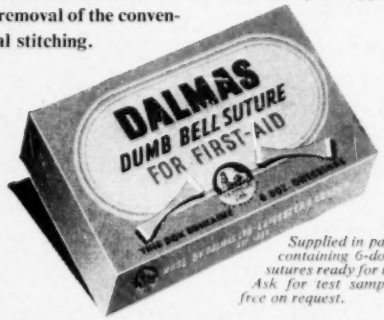
NEW

PROFESSIONALLY APPROVED

FIRST-AID TECHNIQUE

A suture with gauze turned back to show medicated pad.

This new technique is in every way as practical as the old, but infinitely simpler, quicker and more satisfactory. The Dalmas Dumb-bell Suture is made of closely woven fabric, flesh tinted, with self adhesive backing which adheres instantly and firmly. It is designed to banish the fear and discomfort caused by the application and removal of the conventional stitching.



Supplied in packs containing 6-dozen sutures ready for use. Ask for test samples, free on request.

DALMAS Self Adhesive DUMB-BELL SUTURES

FOR INSTANT FIRST-AID ANYWHERE

DALMAS LTD., LEICESTER & LONDON. ESTD · 1823

Reduce foot injuries in *your* factory with

This *NEW* safety footwear has all these *EXTRA* features

1. *Extra protection.* Fully armoured with built-in steel toe-cap and built throughout in accordance with the latest B.S.I. Specification. Complete protection against static crushing pressures up to three tons.

2. *Smart appearance.* PLUS FIFTY boots and shoes are indistinguishable from normal footwear, and available in a range of modern styles, all with invisible, built-in reinforcement.

3. 50% *longer wear, and greater comfort.* Only specially prepared leathers are used throughout. Uppers are sewn with rot-proof thread; soles stitched with acid and rot-proof Terylene.

4. *Free insurance.* (£1,000 in the event of death following accidental toe injury sustained by the worker in the course of his employment whilst wearing PLUS FIFTY footwear or compensation during disablement from following his occupation as the result of such injury at the rate of £10 per week up to a maximum of £60.)

5. *Immediate delivery.* Special in-stock supply service ensures prompt despatch of all sizes.

Plus Fifty

A complete range of boots and shoes combining style with safety

SOLD ONLY THROUGH WELFARE DEPARTMENTS AND INTERNAL INDUSTRIAL ORGANISATIONS

Get full details and prices, without delay, from

PROTECTIVE FOOTWEAR SERVICE LIMITED

LODGE ROAD · KINGSWOOD · BRISTOL

226610

"IT IS BETTER TO GIVE . . . "

The attention of our readers is drawn to the charitable appeals on this page and elsewhere in the journal. The Christmas spirit is traditionally expressed in giving, and who are more entitled to receive our gifts than those less fortunate than ourselves—either through sickness or ill luck, or because their duties cause them to be away from home at Christmas time? May we ask you to remember those who really need your help?

John's starting out in the World . . .

He's earning his living and he's got to find his own feet What an advantage it is for him to have the Y.M.C.A. where he can meet his pals and join in the games and hobbies he likes. And what a comfort to his parents to know that he spends his spare time in a friendly, wholesome atmosphere among the right sort of people!

Many a young man entering the Forces or starting a civilian career finds lasting personal friendship and spiritual support in the Y.M.C.A. But the need for its service grows daily greater.

Please send the most generous donation you can afford to help the Y.M.C.A. to extend its work.

Donations may be sent to the Rt. Hon. The Earl of Athlone, K.G., G.C.B., President of the Y.M.C.A. National Service Fund, 112 Great Russell Street, London, W.C.1

Y.M.C.A.

Please send a Christmas Gift to the

IMPERIAL CANCER RESEARCH FUND

Patron: Her Most Gracious Majesty The Queen

President: The Rt. Hon. The Earl of Halifax, K.G., P.C.

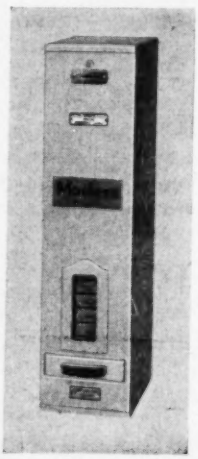
The fund was founded in 1902 under the direction of the Royal College of Physicians of London and the Royal College of Surgeons of England. It is a centre for research and information on Cancer and carries on continuous and systematic investigations in up-to-date laboratories at Mill Hill.

LEGACIES, DONATIONS & SUBSCRIPTIONS are urgently needed for the maintenance and extension of our work.

Gifts should be sent to the Honorary Treasurer, Sir Holburt Waring, Bt., at Royal College of Surgeons, Lincoln's Inn Fields, London, W.C.2

PETER'S

SANITARY TOWEL VENDING MACHINES provide these advantages



- A mechanism that can be adjusted to operate on any number of coins.
- A choice of brands—soluble and non-soluble.
- An assurance of unlimited supplies.

Particulars from:

PETER'S AUTOMATIC MACHINES LIMITED

1 LADBROKE RD., LONDON, W.11

Telephone : PARK 7608

MINING REVIEW

the industrial magazine film that holds two records

NUMBER OF ISSUES

the December 1952 number was the sixty-fourth

AUDIENCES

miners, their families and neighbours
with cinemagoers in London and other parts of the country
make a total of over 2 million each month

MINING REVIEW is produced by **DATA** 21 SOHO SQUARE, W.1 · Gerrard 2826

YOUR GUARANTEE OF FOOT SAFETY

The scientifically designed, neatly concealed steel toe-cap in "TOTECTORS" will withstand a static weight of 3 tons, whilst special felt-padded tongues afford extra foot protection.

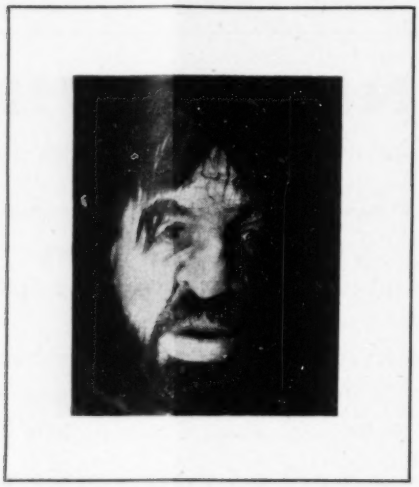
WEAR

REGD.
TOTECTORS

SAFETY BOOTS & SHOES

Write for illustrated literature to Dept. P.M.

WILKINS & DENTON LTD.
51 & 52 Woburn Place, London, W.C.1



I'm a Night Watchman

I want a job, and I want it in your factory

Certain evil-minded men will soon be putting into operation their plans for the winter raids on the factories. But I've got them taped. I've got three letters to prove it.

One of the first acts of the wrong-doers is to observe, and to learn the habits of the watchman—the times he does his rounds. And then pounce.

But they can't pounce on me. I've got the letters.

I report on the job—say, at 6 o'clock every evening. I'm told to visit certain vital points of your factory several times in a night. I'm told not to patrol the same points at the same times every night, but to stagger my inspections.

I do what I'm told to do. It's all in the letters.

And listen! Listen! I can carry out my instructions without supervision. And every morning someone in your office can, in a few moments, check up on me. You'll soon find out that I'm an honest man and conscientious—a friend in need.

★ ★ ★

Of course this paragon of a watchman isn't for sale. But the apparatus responsible for this dependability is. We, Blick Time Recorders Ltd., manufacture it. With our apparatus, weighing less than seven pounds, you can convert an ordinary man into a watchman with all the virtues.

We would like to send you particulars of our device. Drop us a line to Vine Yard, 99 Aldersgate Street, London, E.C.1; and, with our particulars, we shall send you copies of the three letters, letters from three of the greatest firms in the land, letters which establish beyond question the worth and the wonderfulness of our invention.

If you are the least little bit unhappy about this winter's security arrangements, now is the time to get your letter off.

KEEP THEM DRY!

Whether it be the protection of your plant, stock, or workers, from damage or loss of time, there is a "Hill" manufacture to suit the job.

TARPAULINS, 1st quality—roped and eyeletted.
18 oz. flax 21 ft. × 15 ft. .. £14 0 0
18 oz. jute. 21 ft. × 15 ft. .. £9 0 0
Good quality reconditioned ex Ministry. Flax and cotton ducks 18 ft. × 15 ft. £7 15 0

OILSKIN COATS. Full length black oilskin, lined collar and half length fleecy shoulder lining £1 19 6

WELLINGTONS. Cleated soles and heels. Guaranteed .. £1 5 6

DONKEY COATS. Warm melton and serge. Patch pockets. Buttons or toggles £2 12 6

DUFFLE COATS. Full length. Hooded styles. Warm melton and serge. Toggle fasteners. Excellent value £3 12 6

These are only a brief selection from our stocks, we hold large stocks of new and reconditioned tarpaulins in many sizes, big selections of industrial outdoor clothing. Write for our lists. All manufactures offered on money back guarantee basis.

L. H. HILL

2 Catherine Road, Heath Park, Romford

Telephone: Romford 4453/8825

A Canteen Manager Said

"I know that there is a profit in Cakemaking and I'd put in a Bakery today if I knew what it cost and—if I knew how to do it."

This remark is not so surprising as it seems. Not all Canteen Managements have practical experience of flour confectionery manufacture.

We can help

By means of the Silicate Canteen Bakery Unit System we can supply not only the essential detailed equipment to cope with the desired output, large or small, but offer the services of our Technical Consultant, an experienced Caterer, who can give advice on the problems of Layout; Equipment; Staff; Recipes; Costings, etc. Write for Particulars

SILICATE BAKERY ENGINEERING CO. LTD.

129-131 Conybere Street

BIRMINGHAM 12

Phone: CALthorpe 3084

PERSONNEL MANAGEMENT WELFARE AND INDUSTRIAL EQUIPMENT

CONTENTS FOR DECEMBER, 1952

MANAGEMENT OF PERSONNEL

4-POINT NATIONAL SERVICE POLICY ... ... ROBERT DOUGLAS, G.C. *Management Consultant* 245

THE PERSONNEL OFFICER'S JOB 252

INDUSTRIAL EQUIPMENT AND MANAGEMENT

SECURITY—MEN, METHODS, EQUIPMENT ... ... DENYS HAMILTON 239

CRANE CUTS OVERHEADS, TIME, FATIGUE ... ... N. S. PIPPARD *Building Research Station, D.S.I.R.* 243

EQUIPMENT THAT RAISES OUTPUT: Canteen ★ Handling ★ Hygiene Packing 261

WELFARE, TRAINING AND HEALTH

TRAINING SCHEMES FOR YOUTH 241

STARTING A WORKS' FILM SOCIETY ... ... PAT BOWMAN 250

INDUSTRIAL FILMS REVIEWED ... ... PAUL NUGAT 258

SAFETY AND ACCIDENT PREVENTION—CIVIL DEFENCE

REDUCING MILLING MACHINE ACCIDENTS ... ... ROBERT McKOWN *Formerly Editor, British Journal of Industrial Safety* 248

REALISTIC WORKS CIVIL DEFENCE EXERCISE 249

CANTEENS AND CATERING

CHRISTMAS FARE IN THE CANTEEN... ... ... WINEFRED YEOMANS *Catering Manager, Daily Mirror Newspapers Ltd.* 256

NEWS AND READERS' SERVICE

CURRENT PERSONNEL AND PRODUCTION PRACTICE DIGEST 246

PERSONNEL NEWS BULLETIN 253

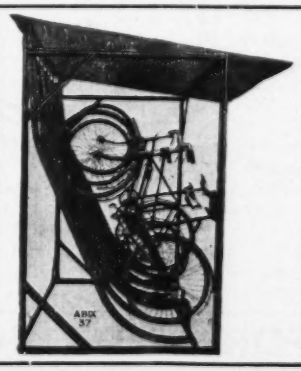
SUMMARY OF OFFICIAL PUBLICATIONS 264

MANAGEMENT DIARY FOR DECEMBER 266

Vol. 19, No. 151

Published monthly by Shaw Publishing Co. Ltd., 180 Fleet Street, London, E.C.4 (CHA. 8844) Incorporating "Civil Defence Journal and ARP & NFS Review" and "Welfare," London. Subscription rates: 20s. per year, post free in the U.K.; 25s. per year overseas.

CHANGE OF SUBSCRIBER'S ADDRESS. Please inform the Publishers six clear weeks in advance and include present address as well as new address required.



ABIX CYCLE STANDS

THE HOME OF THE BRITISH CYCLE

This is our type 'A' cycle stand. There are 20 types for selection. All steelwork stove-enamelled green for durability.

Illustrated catalogue on request.

ABIX (METAL INDUSTRIES) LTD

FACTORY EQUIPMENT SPECIALISTS

TAYBRIDGE WORKS, TAYBRIDGE ROAD BATTERSEA, LONDON, S.W.11

Phone: BAT 8666/7. Grams: ABIX, BATT, LONDON

THIS CANNOT HAPPEN!

LONDON BLAZE

Fire Gets Hold in Night

Cotton goods in the basement of a large East London factory were smouldering for five hours unnoticed before bursting into flames in the early hours of this morning. Before the arrival of the fire brigade the fire had secured a firm hold . . . . . .

GAGGED & BOUND ALL NIGHT

Watchman's ordeal

The night watchman of an important Birmingham store told police officers this morning how he had been attacked by masked intruders while he was making his round at 3 a.m., and threatened with a cosh if he made a sound, before they gagged and bound him and threw him . . . . . .

This fire could not have gone unnoticed; that watchman could not have lain undiscovered on any premises equipped with the new Rentrix Automatic Watchman's Patrol Unit, because *with this system the watchman MUST make his rounds.* The Rentrix System consists, briefly, of a series of switches placed at strategic points on your premises, each connected to a master unit in the watchman's office. This warns him when his rounds are due and records his obedience—or otherwise. The Automatic Watchman's Patrol Unit also gives direct warning if a watchman fails to complete a round at pre-determined times; he can himself send a " panic " warning for help from any switchpoint.

CONSIDER THESE 8 POINTS

1. It tells the watchman when to make his patrol.
2. Compels him to visit every vital point of patrol.
3. Automatically records his efficiency.
4. Allows watchman to vary routes.
5. Enables him to summon immediate help.
6. Tampering automatically operates alarm, independent of mains supply.
7. Eliminates " human element " in emergency operation.
8. Can be silenced only by unhindered and efficient patrolling

Write for further particulars and illustrated brochure to :—

Rentrix

COMMERCIAL COUNTING & CONTROL, LTD.,

16, Grosvenor Place, London, S.W.1.

Sloane 8805 & 3595.

RENTRIX—FOR *SCIENTIFIC* SECURITY

"All means of entry to the factory should be regularly checked."

Factory Security Depends on the Right Men, Methods and Equipment

By DENYS HAMILTON

Is a night-watchman enough? Or are works police the answer? Burglar alarms—are they effective? And dogs? How to prevent pilfering by one's own employees? These are some of the questions which we set out to answer, in an attempt to help those who make security policy, and those—many of them personnel managers playing a dual role—who have the unenviable but essential job of protecting industrial and commercial premises against theft.

"YES, quite a lot of us look after security as well," said the personnel manager. "I'm not sure that it's entirely a good thing, for the two approaches are opposed. On the one hand, you're the friend of everybody; on the other, you're the super snooper. But there it is. The security job's got to be done, and very often the personnel department has to do it. I think we've managed a fair compromise here. Without apparently affecting our relations with anybody on the payroll, we've cut internal pilfering to very small dimensions, had no burglaries over the past four years, and prevented more than one fire spreading. Could be a worse record."

It could, indeed. This personnel manager-cum-security officer and his firm believe in the efficiency of carefully selected security police, to protect the factory all round the clock. Their standards are high, and these are the qualities they demand in their policemen:

1. A personality which is authoritative yet tactful, firm yet kindly;
2. Previous experience in the regular police force if possible;
3. Physical strength and fitness;
4. Knowledge of handling, and fondness for, dogs.

Item 1 has priority. Without it, an applicant has no hope of engagement. The company insist that their police shall be respected in the factory; therefore, they must be able to make a friendly approach while remaining slightly aloof. They are smartly uniformed, and never demeaned by being asked to do menial jobs.

The fourth requirement indicates that this firm, one of a growing number throughout the country, has great faith in the deterrent qualities of guard dogs, whose main function, however, is to protect the policeman on night patrol within the factory perimeter. On patrol, the dog is always kept on the lead unless released to get his man. Trained to a hair, he needs expert handling. Training, therefore, is no less necessary for the policeman, each of whom patrols with a dog as his tour of duty comes up on the rota.

Apart from kennelling and incidentals, it costs £2 5s. to £2 10s. a week to feed each dog, but there is no doubt in this and other dog-owning companies, that the animals earn their keep. Another use has been found for the guard dog. Walking with his handler at a discreet distance in the rear, he protects cashier and money on journeys to and from the bank.

Generally speaking, the security officer has two main problems to solve—how to prevent pilfering from within the factory by day, and burglary from without by night. Of internal pilfering, more will be said later. Prevention of burglary involves certain elementary precautions which serve a double purpose. First, they ensure that the premises are as difficult to enter as it is possible to make them; secondly (and consequently) they maintain the morale of the men—security police or watchmen—who must remain on guard all night.

The security officer should ensure that the perimeter is sound, with fencing or walls in good repair. All accessible windows and doors must be safeguarded with good locks or padlocks. Many people recommend strong wire mesh for the lower parts of windows. Barbed wire may be effectively used on stack pipes to prevent climbing, though care should be taken that the public are not endangered.

Fanlights, wall gates, air vents and other possible means of entry should be regularly checked, and the local police informed at once if any security fixtures are missing or not in order.

For the night patrol, be it watch-

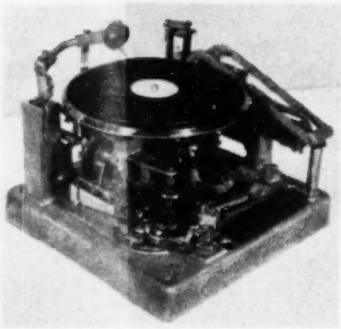
men or security police, some form of checking mechanism seems to have been widely adopted. There is, for instance, the watchman's clock system, in which station boxes with engraved keys attached are installed at various points througout the premises. With his clock in its leather case carried over his shoulder, the watchman records the time at which he visits each point by inserting the key into the clock. A record is kept inside the clock, and each night's records are pasted into a book by the time office or security staff after the watchman has gone off duty. In the book is a picture of the watchman's habits; any tendency to go round at the same time each night can be detected and discouraged. Further, the security officer can check that the watchman patrols at frequent intervals, covering the whole area slowly and thoroughly.

Automatic Patrol Unit

Then there is the "automatic watchman's patrol unit." This is a low voltage, mains operated control mechanism wired to a network of modified two-way switches situated at various positions throughout the premises. Management having decided on the frequency of patrols, the synchronous clock in the mechanism is set to the variation required —hourly, two-hourly, and so on. On the control panel are two red warning lights. As soon as the time is reached for the first patrol to begin, one of these lights is illuminated. The watchman visits each check point, throws the switch, and on completion of his tour returns to the unit at his headquarters. The numerator—another part of the device—will credit him with one completed patrol. If he has not visited each check point, the warning light will remain on until the omission has been made good. This must be done within the period set for the patrol or else the numerator will not register a completed patrol. When the next patrol is due to start, the other light comes on.

If the watchman fails to complete his patrol in the time allotted, the alarm operates automatically, as it will if the wiring is cut or the unit interfered with. The alarm can take the form of bells, buzzers, lights or a telephone call to any predetermined number, including the police station.

"Panic switches" can be incorporated in dark alleys and close to places where an intruder might be concealed. If the watchman senses danger he can summon aid by throwing the panic switch, which operates the alarm instantly.



This is the transmitter of the burglar alarm described below. As soon as the electric circuit is made or broken by an intruder, the mechanism dials 999, the tone arm is lowered to the record, and a warning message is phoned to the police station.
(Burgot Rentals Ltd. photo.)

Another device which automatically telephones the police if an intruder enters the premises is an alarm with a large number of arrests to its credit. This is primarily designed for use where no patrols are employed, though it can be used in conjunction with patrols, as a perimeter safeguard. The men must not, however, cross the perimeter. If they do, they will operate the alarm.

The installation consists of a transmitter and a number of protective points (wires, contacts, rays, etc.) linked by a control unit. The transmitter needs only one momentary electrical impulse to start operation. On the arrival of this impulse—supplied via a 9 volt dry battery when the circuit is made or broken by an intruder—the telephone line is engaged and held, and the turntable carrying a direct acetate recording is started up by its clockwork motor. After waiting long enough to obtain the dialling tone, the transmitter dials 999 or another appropriate emergency number, the electrical pick-up is lowered on to the record and a warning message is repeated to the police station for about ten minutes, the running time of the motor. The whole point of this alarm is that it does *not* warn the intruder that his entry has been detected. He knows nothing until the police arrive in their radio-controlled patrol car.

As has been indicated, there is quite a variety of security methods in use by British industry. Some firms pin their faith on watchmen, others on security police (with or without dogs), or on watchmen plus burglar alarm, or an alarm system alone. There is another method available to firms in the Greater London area. This is a private enterprise security force which offers to protect premises at night, or at other times when they are unoccupied, by posting its own security guards in place of night watchmen. The two main advantages of this system arise from the very good types of men employed and an operational organisation that is at all times behind the men on the spot.

This security corps is no private army, but is designed to help the police in the *prevention* of crime. Each guard is in communication with his permanently-manned headquarters by telephone at specified

Continued on page 258.

The night patrol should be armed with a truncheon, in case he has to cope with a situation like this.
(Securicor photo.)

Youth and Industry Gain From These Modern Training Schemes

By THE EDITOR

The raising of productivity depends on the regular supply of craftsmen into industry. Here is related how four widely differing firms train their craftsmen of the future—and in doing so offer really worthwhile opportunities to the boys who join them.

This A.P.V. craft apprentice does eighteen months' fitting in his five-year course.

The A.P.V. Co. Ltd.

Craftsmen, Students, Graduates

MANUFACTURERS of plant for the dairy, brewing, and food industries, etc., the A.P.V. Co. Ltd. have three training grades—craft and student apprentices and graduate trainees, doing 5-year, 4 to 5-year and 2-year courses respectively. All serve six months' probation. Craft apprentices are accepted between the ages of 16 and 17, students between 17 and 19, and graduates at 21 onwards. 15-year-olds are taken on as juniors and apprenticed at 16.

Craft apprentices (present total 45) train to be fitters, pattern makers, coppersmiths, electricians, etc. Course comprises machine shop, one year; light fitting, nine months; heavy fitting, nine months; inspection, four weeks; foundry, two weeks; maintenance, tool room, development shop, all up to one year, plus some outside erection. All trainees (students and graduates as well) allowed equivalent of one day a week for technical study. Craft apprentices take City and Guilds or national certificate course. They may apply for transfer to student grade, and may even reach graduate grade (one boy has done this). Pay—from £1 15s. 6¾d. at fifteen years to £5 0s. 5d. at twenty, plus shop and school results bonuses.

Student apprentices (twelve) are boys who have had a longer schooling than normal or full-time university or technical school course. Must have attained at least London matric. standard. They do eighteen months' shop training, and then go to the drawing office, whence they may be recruited for other departments or the firm's branches and agents at home or overseas. These boys take the national certificate course, and should get their higher certificate during apprenticeship. They are encouraged to become members of the Institute of Mechanical Engineers. Like the craft apprentices, they are allowed three one-day visits a year to other firms during technical school vacation. Pay—from £2 16s. 5d. a week at sixteen years to £5 11s. at twenty, plus scholastic bonuses.

Graduate trainees (three) spend at least a year in the shops, a period in the drawing office, and several months with other firms, but courses are adapted to the different needs of mechanical science, natural science and arts graduates. After training period, successful trainees can spend two-three months with an A.P.V. company overseas.

Apprentices' club, run by the boys, contains technical lending library, organises sports and socials, arranges visits to other firms, produces company-subsidised magazine and has its own banking account. Company's initial grant of £80 has not had to be added to; boys pay 2d. weekly subscription to club and magazine sales (2d. a copy) help to swell funds.

W. E. Crosby, secretary of the apprenticeship and training scheme, encourages all apprentices to take the Outward Bound Course. With the national service problem in mind, he has asked for trade union views on the possibility of the company's taking apprentices at twenty years of age.

Unilever Ltd.

Better Use of Men and Machines

THIS year, Unilever Ltd. started a regional apprentice training scheme—a combined enterprise by five of their companies in the Merseyside area. Opening the regional training centre at Port Sunlight, Sir Geoffrey Heyworth, Unilever chairman, said that in inaugurating this scheme the company were aiming at the better use of men and of machines. "It is one of the purposes of the training workshop to inculcate not only a mastery of tools but a strict measure of self-discipline and self-criticism."

Candidates between fifteen-and-a-half and sixteen years of age are nominated by their own companies for the following trades: *Engineering*. Boilermaker, electrician, fitter and machinist, sheet metal worker. *Building trades*. Bricklayer, carpenter and joiner, painter, plumber.

After educational and general

knowledge tests, those selected do six months in the basic workshop. In his first three months the apprentice is taught general workshop practice, and is watched by the instructors to determine whether he is suited to follow the craft he has chosen. If not, he is encouraged to make a new choice. The second three months are spent in more specialised training, e.g., the apprentice fitter is taught to make tools which will later on be a useful part of his equipment.

At the end of basic training, successful candidates sign indentures which are back-dated to include the initial training period. For the next 4¼ years an apprentice will go to one or other of the workshops in the region best suited for training in the various trades. As practicable, apprentices at the age of 18¼ will receive six months' drawing office training.

Engineering and building trade apprentices in the hand tool workshop of the Unilever regional training centre, Port Sunlight.

It is a condition of the continuance of the indenture that the apprentice attends part-time technical courses supervised by the regional training manager. The R.T.M. keeps in personal touch with every boy and encourages him, if he shows ability, to go on to get professional qualifications in some branch of engineering.

During his period of basic workshop training the apprentice, if his home is away from Port Sunlight, lives in a nearby hostel maintained by the participating companies.

Dunlop Rubber Co. Ltd.

Bringing Out Latent Ability

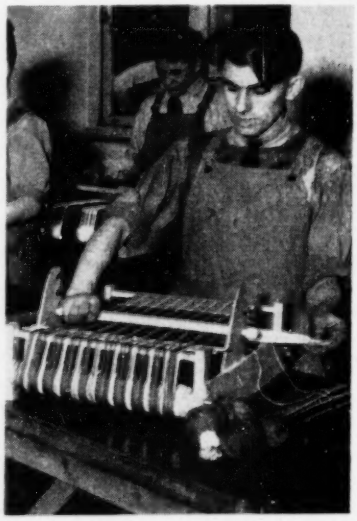
ALL boys reaching sixteen years attend the training centre of Dunlop's general rubber goods division, Manchester, for one day a week (with pay) until they are eighteen. They receive instruction in the history and theoretical and practical aspects of rubber and textile manufacture; drawing; practical engineering; time and motion study; simple costing; coal, steam and power; safety; and factory welfare and hygiene. Practical work is done in an engineering shop, a blacksmith's shop and on a model rubber plant. Students also study foremanship at the Manchester College of Technology.

There are no examinations. The scheme is a long-term one aiming at bringing out each boy's latent ability and to bridge the gap created by national service, whereby youths leaving industry at a critical age return as men with the industrial experience of youths. The training centre can fit them for a more intelligent study of the subjects they may take up in the Services, and on their discharge they can return to the company for a refresher course.

It is estimated that from 10 to 15 per cent of the boys now in training can go on as chargehands or foremen; 20 to 30 per cent of them will become capable of replacing the shop operatives who work the more extensive plant; and should any of them show special ability, he will be given the chance to follow his bent.

Training is unconventional. In the engineering workshop, boys are allowed to make such things as pokers, ash trays and candlesticks to take home with them. Because machine drawing lessons were not too successful, a change was made to the drawing of plans for dog kennels and rabbit hutches.

To enable the boys to appreciate what a department costs to run, finance is made interesting by a personal approach. A boy will put down in detail how he spends one pay packet before he gets the next; another will set out the spending of a family's income, and yet another will balance an estimated profit and loss account of a "corner shop" in his own street. The simple course on motion study is based mainly on a methodical approach to the placing of articles for rapid handling and ease of assembly.



Dunlop trainees learn about cotton by weaving themselves scarves on hand looms.

The course also includes an illus-

trated lecture on coal—how it is mined, graded and used in the rubber industry.

Whitbread & Co. Ltd.

School for Coopers

THE Whitbread apprentices' school for coopers is the only one of its kind in the country, and possibly in the world. In other training schemes for coopers, it is customary

The instructor—full time and salaried—teaches one of his class how to make a cask by hand.

for the boys to serve at least two years of their time under a master who is paid on piecework rates; hence it is difficult for him to devote as much time to his charges as might be thought desirable. At Whitbreads, the boys spend the whole of their five-year apprenticeship under a salaried instructor—four or five boys forming a class.

The boys—at present only the sons of coopers are eligible—are taken into apprenticeship at 16 years, and are taught to make casks both by hand and by machinery. Up to 18 years they attend a City day school one day a week for general education.

The school, started in 1948 as an experiment with the approval of the London District Joint Industrial Council, has proved a great success, say the company. It may prove a model for adoption by coopers throughout the British Isles.

At present seven apprentices are under instruction. Jobs are guaranteed after the course is finished.

Equipment that Raises Output

This Crane Cuts Overheads, Time and Worker Fatigue

By **N. S. PIPPARD,** *of the Building Operations Research Unit, Building Research Station, Department of Scientific and Industrial Research.*

Like other industries, building is making increasing use of materials handling plant to eke out the available labour and to help the worker to do a better, safer job. The British builder uses one type of equipment for lifting and a different type for carrying; but the Continental builder is getting some remarkable results from a device which combines the two functions.

ECONOMICAL handling of building materials has become increasingly important since the war. The dearth of suitable labour and the rising cost of manpower have tended to accelerate the development of mechanical handling plant, and to revolutionise some manual operations that had remained virtually unchanged for centuries.

As a part of a wider study of the whole handling problem, the Building Research Station of the D.S.I.R. have investigated the handling methods used in various countries in Europe. In the first instance attention has been paid primarily to the site handling of materials in housebuilding.

In this country the industry has concentrated on the development of different items of plant to deal individually with vertical and horizontal transport of materials whereas on the Continent they have tended to concentrate on the use of one machine for moving materials in both directions. As a result of these differing lines of thought, the British house builder has a variety of mechanical barrows and powered hoists at his disposal, while the modern continental builder uses a

One of the larger tower cranes in use on the Continent. They are brought into operation about two days after foundations are started, and thus speed the work by unloading materials and disposing of excavated material.

rail-mounted tower crane for all but his smallest jobs.

Apart from possible savings in time and cost, *the crane reduces to a minimum, human effort and fatigue in handling heavy materials.* In countries where the use of cranes is normal practice, materials are commonly delivered to the site boxed or packaged for easy handling by the machine. The heavy work of unloading and reloading is eliminated.

Here are some performance figures for a typical small tower-crane. It is a German machine, and in its essential features is similar to the many types produced in Germany,

France, Switzerland, Italy and Russia.

This crane can lift about 1,100 lb. at a maximum reach of 42 ft. It works with speed and efficiency and cuts out a good deal of the laborious and often wasteful effort normally expended in the handling of concrete, bricks and mortar. An example of its possibilities: With a team of one driver and two slingers, it can deliver to the bricklayer 20,000 bricks and the necessary mortar in an 8-hr. working day—a total of 24 man-hours. If the same quantity of material were handled by hod, the time normally required would be about 140 man-hours.

In order to obtain the maximum saving possible with a crane, the planning of the building work must take the capabilities of the machine into full consideration. Thus, greater attention must be paid to site organisation, and here the continental builder shows great skill.

It has been found on the Continent that the saving in overall building time and consequently in overhead costs is one important result of using a crane, as it is possible to double or treble the annual turnover. The builder, therefore, plans his work on the site with this object in view.

Planning is Vital

A very detailed programme is considered essential. In fact it is the practice in some European countries for the builder to submit an "organisation plan" with his tender, and this plan is considered by the architect when awarding the contract. In this plan the builder sets out the disposition of his crane and tracks, his mixing points and his material stores, dumps and stacks: all these points are planned within the working reach of the crane. The time that each operation is expected to take, with starting and finishing dates is shown, together with the plant and labour force required to carry out the work.

The programme is based on the capacity of the crane and other mechanical plant, such as concrete mixers, which are to be used. The machine cycles likely to be attained in each operation are carefully estimated and co-ordinated, and the numbers of operatives required to keep the plant fully occupied are determined.

On the site, preparatory ground work is usually carried out mechanically. Simultaneously with the start of foundation excavation, the laying of the tracks and the erection of the crane are started. This normally occupies about two days. The crane starts work at once in unloading materials and in the disposal of surplus excavated material, either by spreading within its working area, or by loading into vehicles for disposal away from the site. From now on the crane is fully occupied until the buildings are roofed in, when it moves to its next working area. Internal walls and partitions are carried up with the external walls to the greatest possible extent. When the programmed times are not maintained, an adjustment of the labour force is normally made to meet the circumstances. The programme is based upon the proved capacity of the machines and any serious departure from the times laid down for any particular operation will thus tend not only to disorganise the following work, but also to lead to inefficient use of the machines.

Taking the actual national average for handling as 550 man-hours for a pair of houses to the "roofed-in" stage, *it would appear that* 400 *of these man-hours can be saved by the use of a rail-mounted tower crane.* Also, assuming the present average productivity of the craftsmen and strict adherence to a carefully planned programme, one pair of "roofed-in" shells can be completed every four days after the first pair has reached this stage. This rate of production is much greater than that which is being achieved by the usual methods. Similar high rates of production were noted on a number of sites in Germany.

From observation of continental sites upon which tower cranes are used it would appear that a high level of organisational efficiency can be more readily achieved with this method than with traditional methods. On many sites it is probable that savings due to improvement in organisation and the consequent reduction of unavoidable non-productive time can be expected, in addition to savings in actual handling time. But economically, the cranes have yet to be proved when used in British building.

The Building Research Station hope soon to make practical tests in an endeavour to show what contribution the methods practised so successfully in Europe can make to the output of the building industry in Britain. (This article is published by the permission of the Director of Building Research.)

A Real Time Saver

	Man-hours
20,000 bricks plus mortar delivered to the bricklayer, by hod	140
by tower crane (team of three, 8-hour day) ...	24
National average for handling materials for one pair of houses to roofed-in-stage ...	550
Estimated time with tower crane	150

Question & Answer

By JOHN LYMESTER

Mr. Lymester will be glad to answer readers' financial and legal questions, a selection of which, with his replies, will be published in this column.

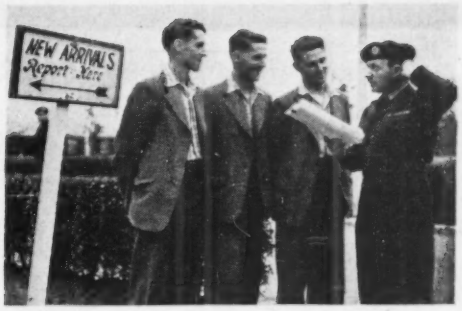
Q. *Employees at this factory receive their wages in a sealed packet; these packets are made up and checked in our cashier's department. Recently an employee complained that when he opened his wage packet at home he found his money was short. The employee claims that he is entitled to the "balance" which, according to him, he was not paid. What is the legal position when a claim such as this is made?*

A. If a man is paid short you are obviously under an obligation to make his pay up to the proper amount. In fact, in the case of employees covered by wages council orders or similar requirements, you may be committing an offence if his pay is not made up. This is very far, however, from saying that you must make up a man's pay on his word that his packet was short. On a complaint of short money the matter should be investigated and if the claim can be substantiated it should be met.

Where, however, an accountancy check does not disclose an error which would arise out of the short payment there is no need to meet the claim. Incidentally, the inclusion of a term in works rules that wages must be examined immediately on payment and that "mistakes cannot be rectified later" will avoid this type of difficult situation.

A 4-Point Policy to Overcome National Service Problems

By ROBERT DOUGLAS, G.C., *Management Consultant, and formerly Personnel Manager in the textile, steel and road haulage industries and with the Festival of Britain.*



National Service recruits can be a problem to their N.C.O.—but not to the firm with a National Service policy.

THE firm who have taken some trouble with the training of their youngsters do not wish to lose them after they have done their national service; but statistics compiled by the writer concerning a group of factories with nearly 10,000 employees showed that over two years only 27 per cent of former employees had returned to the firm after doing their service.

But if a firm has a policy on national service, the continuity inherent in such a policy will tend to bring the boys back to the firm after their period of service. An effective national service policy will also be good for the boys, in that it will make them more knowledgeable about, and therefore happier in, their Service life, and good for the nation in that the boys will the more readily and more correctly take their places in the Forces.

Some firms have tackled the question by the organisation of periodic pre-national service courses. A laid-down policy, however, is perhaps the solution, and the following four point policy, once adopted, should cause no dislocation of the normal personnel practices within the firm and should simply become a "procedure" with the age-groups concerned:

1. Preparation for national service.
2. Continuity during national service.
3. Resettlement after national service.
4. Follow-up.

PRE-NATIONAL SERVICE COURSE

FIRST DAY

MORNING	AFTERNOON
Opening of the course by a high executive.	"R.A.F. Technical Trades" by R.A.F. technical officer.
Talk on "The Ideal of Service" by a local clergyman.	"Technical Trades in the Army" by an Army technical officer.
"Call-Up Procedure" by an official of the Ministry of Labour.	

SECOND DAY

"Naval Trades" by R.N. engineer officer.	"The Regimental Officer" by an Army officer.
"Education in the Army" by an officer of the Army Education Corps.	"The Firm's Policy" by an executive of the company.

THIRD DAY

Three short talks on "Service Life" by members of the R.A.F., Army and Navy. These should be given by returned Servicemen who are employees of the company (not necessarily N.S. men).	"The Service Padre's Point of View" by a Service chaplain.
Film entitled "Call-Up."	Discussion Groups.
	Reporting back and questions.
	Summing up and closure by the chairman.

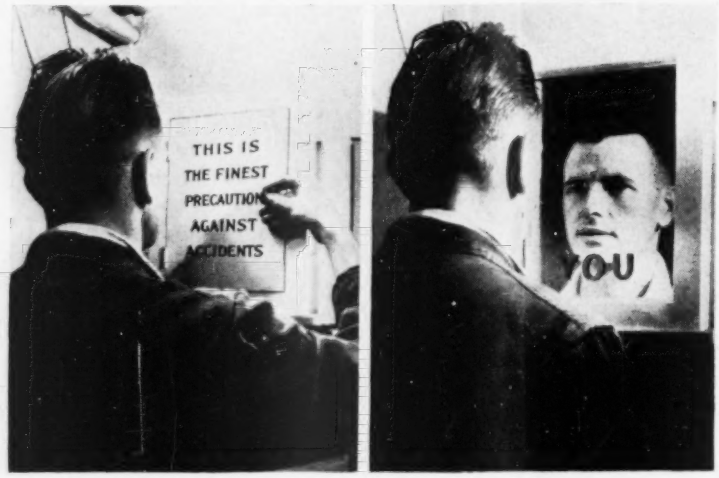
Preparation.—This should be in the nature of a short pre-national service course lasting at least two days and be held, say, every six months. It should cover the age groups due in the next call-up. The following programme (in this case for a three-day course) gives the kind of information the boys require, by telling them all about the actual call-up procedure as well as something of the career-structure of the three services, trades, and training in the services. Inspiration is given to the course by having a clergyman give the first talk, and the final talk by a Service chaplain leaves the boys with a surer feeling that the Service is a friendly organisation.

Continuity.—A monthly letter should be sent from the personnel department (or, in suitable cases, by the boy's foreman), containing general news of the firm, the boy's department, sport, progress of returned N.S. employees, and information on any policy changes in the firm. A file should be raised on each boy, and copies of letters to him, together with his replies, retained. Any broadsheet, newspaper, or works magazine published by the firm should be sent free as it is published. A suggestion (to come from his foreman) should be made to him to visit the works on each home leave.

Resettlement.—On return (now a man!) the employee should be interviewed very carefully by the personnel manager, who should have made notes from perusal of the file prior to the interview, and after a close investigation of what developments have taken place in the boy's character, he should be carefully fitted back into the working team—

(*Continued on page* 258.)

THIS NEEDS LOOKING INTO



Records show that only about one accident in ten is due to "bad luck." The rest could have been foreseen and need never have happened. This ingenious wall mirror device is used to remind workers at T. Wall and Sons Ltd. that the most important factor in accident prevention is the individual himself.

Improve Your Interviewing

BAD selection is harmful both to the company and to the employee. The following tips can help to improve your interviewing technique: (1) *Allow enough time.* You can spend at least twenty minutes over the average interview in order to elicit the necessary information. (2) *Know what you want.* Get an exact description of the job and what it requires in education, skill, experience, etc. (3) *Use all the help you can get.* Use aptitude tests, rating sheets or any other means which will help you to assess the applicant. (4) *See enough candidates.* Even if the first man seems just right, see the others, you may revise your opinion. (5) *Set the stage right.* Be courteous, don't keep applicants waiting about, ensure reasonable privacy. (6) *Know what to talk about.* There are just three subjects for discussion—the job, the company, and the applicant. Tell the applicant *all about* the job, the activities, responsibilities and rewards involved. Give him a brief outline of the company's organisation and products. But let the applicant tell you about himself—your job is to guide him to the main points on which you require information. (7) *Ask the right questions.* Your questions can be directed towards winning his confidence and encouraging expressions of opinion, to getting factual information, to stimulating him to react to a challenge; but don't let your questions suggest the answers. (8) *Know what to look for.* Examine his background, characteristics, achievements, aptitudes, interests, attitudes and physical condition. (9) *Be a good listener.* Be alert and attentive; the chance remark can tell you a lot. (10) *Reason your way to a decision.* Learn to distinguish between facts and impressions and weigh them both carefully.

(Condensed from *Factory Management and Maintenance*, 10/52.)

Ideas Save £2,000 a Year

H. J. HEINZ CO. LTD., London, food manufacturers, have benefited from ideas introduced into the factory by some of their students attending technical college.

First improvement was in the transport of fibre cases from the stores to the labelling lines. Cases were originally loaded on to hand barrows, wheeled 272 yards to the production department, unloaded and wheeled back again. This job employed four men full time. Two girls then loaded the cases on to hand trolleys for transport to the labelling lines. By dispensing with the hand barrows, doubling the size of the trolleys and using a fork truck, labour was reduced to one man, one girl and the part-time assistance of the truck driver. After allowing for cost of equipment and depreciation, a net saving of £600 a year was achieved.

About £140 a year has also been saved by designing special boxes to hold 4,000 coded labels, thereby eliminating the time wasted formerly in tying and untying the labels in bundles of 200.

Another inexpensive piece of equipment has been the means of saving £1,500 a year. This consists of a stainless steel bar with thirteen prongs and two handles with which the operator can lift ten to twelve bottles at a time in and out of the sterilising tanks.

(Condensed from *Target*, 10/52.)

The Complete Foreman

THE training director of the New Jersey plant of the American Smelting & Refining Co. asked heads of departments to list the qualities they considered essential for a good foreman. This is the list in the order of importance allotted by the company:

(1) Memory for oral and written instructions and ability to recall concrete details.

(2) Ability to remain calm and self-controlled under all circumstances.

(3) Keenness of hearing.

(4) Ability to recognise the implications of a work situation and act on the needs of the situation without specific instructions.

(5) Ability to plan.

(6) Ability to concentrate amidst distractions.

(7) Keenness of vision.

(8) Ability to reason and make judgments.

(9) Ability to make decisions.

(10) Ability to adjust readily to new and changing situations.

(11) Tact in dealing with people.

(Condensed from *Management Review*, 7/52.)

Sales Training

EVERY representative of Tyresoles, Ltd., Wembley, attends the company's sales training school before he goes into the field. He is given an outline of the organisation and full knowledge of the product. Company policy is explained and the sales instructor deals thoroughly with sales approach and sales presentation. The student then spends one or two weeks in the works and offices and is finally handed over to the care of the area manager whose job it is to see that the new representative gets every support during his introductory period.

After a man has been with the company for twelve months, he goes back to school for a week's refresher course. Now he is treated differently. He is made to feel that he is "someone" in the company, and he learns some of the company's problems and future plans as well as more of the finer

arts of salesmanship. Every executive, from the managing director downwards, spends some time at the school during this week. At the end of the course, representatives are given an evening out.

The transition from a sellers' to a buyers' market in 1948 resulted in a labour turnover of 33⅓ per cent in twelve months; improved selection and training methods have reduced this to 10 per cent. Every year an analysis is made of the reasons why men have left or been dismissed and a comparison made with the training instructor's report at the time of engagement. Every effort is made to get the right type of man, and no effort is spared to help him make a success of his job.

Colourful Laundries

EVERY day is "washday" in a laundry, but Windsor Laundry have taken away "the blues" for their employees by introducing gay colour schemes in the workrooms. In the main ironing, pressing and calendering rooms, two side walls are painted Dresden blue, the wall nearest the entrance shell pink, and the far wall and ceiling white. The ventilator shaft, which runs across the centre of the room, is an unusual shade called "bronze rose," while steam pipes are Dresden blue. The packing room is also painted Dresden blue, primrose yellow and white, while the passages are a cool nil green and primrose.

Colour also played an important part in the reconstruction of the May Cottage Laundry, Slough. The exterior of the building is in primrose stucco, with white window frames and blue and white doors. In the workrooms ceilings are pink or blue, with the supporting trusses in white. Columns are white and blue at the top and a dull red lower down. Machines are painted turquoise and white with touches of yellow and red. The floor is of dark polished wood blocks. Canteen and offices are treated in a similar way with individual colour schemes which harmonise with the rest of the building.

Special Prize

A SPECIAL prize of 25 guineas will be given for the best idea received during the next three months from employees of Batchelors Peas Ltd. This is additional to the normal cash award which the idea will merit. All suggestions will be considered by a committee representing both management and workers; where necessary a specialist may be called in. Immediate awards will be made for suggestions whose value can be estimated at once, while provisional prizes will be given to those whose ideas undergo trial, to be followed by a final award when the value is proved. There will be token awards for all whose ideas are not adopted but show real merit.

Ideas & News from House Magazines

Fair Exchange

Under the works council's exchange scheme, a Swedish girl is working at Bournville while a girl from there takes her place with the Ericsson Telephone Co. in Stockholm. (**Bournville Works Magazine.**)

£225 For Good Work

Under the apprentice and junior staff training schemes operated at the Park works of the David Brown companies, ninety-five apprentices attended technical college or evening classes, and sixty-seven of these shared awards amounting to £225. (**News Letter.**)

Safety First—and Last

In spite of the sale of 1,965 pairs of safety boots over the past twelve months, thirty-three employees sustained accidents which could have been avoided by the use of this type of footwear. (**Phoenix Gazette.**)

Where the Money Goes

Members of the F. H. Lloyd and Co. Ltd. works council discovered where the money goes when the balance sheet was explained and illustrated by pictorial charts. They learned that employees' remuneration and benefits amounted to £926,519. This figure included £16,000 in contributions to national insurance and £42,000 towards the provision of employees' pensions. The Government took £269,000 in taxes and shareholders £61,951 in dividends.

A chart showing how each £1 of income was spent revealed that employees' remuneration and benefits accounted for 6s. 9d.; materials, 5s. 11d.; services (rent, rates and insurance) 2s. 6d.; taxes, 2s.; depreciation and maintenance, 1s. 4d.; reserves, 1s. 1d.; dividends, 5d. (**The Steel Casting.**)

Apprentices Are Journalists

In addition to having a section in the company's house magazine devoted to their activities, apprentices at A.P.V. Co. Ltd. have their own magazine. It is written and edited by the boys themselves and gives reports of their association, works visits, sports and social activities. (**The Bulletin.**)

Down Your Way

Sister Broad, interviewed by Richard Dimbleby, reported that Stanton Iron Works were pioneers in introducing medical services for employees in heavy industry over 33 years ago. She was the first full-time nurse to be engaged. Today she is superintendent of a staff of twenty-three state registered nurses. (**The Stantonian.**)

All This, and Nylons Too

In the course of one year, employees of Howard Ford Ltd., consumed 144,000 dinners in their canteen; borrowed 10,000 books from their works library; attended seventeen canteen concerts, eight Philharmonic industrial concerts, and eight staff dances; played thirty football matches; ordered 90,000 pairs of nylons; and received 10,000 copies of their works magazine. (**Top Hat.**)

PRE-VIEW FOR RADIO WORKERS

Nearly 2,000 workers at E. K. Cole Ltd., Southend, enjoyed this fashion parade put on by a local store. The company were happy because their workers were happy; the stores were happy because the workers are potential customers; the canteen were happy because they increased their trade. (The fashion parade was held in the canteen.)

Most milling machine accidents occur on simple types of machine such as are used by semi-skilled or unskilled operators. Since publication of the first report of the committee which has been investigating the safeguarding of these machines, the annual total of accidents caused by them has fallen from 1,700 to 400. The committee's second report, recently published and reviewed here, deals with types of machine not previously covered. Between them, the reports should be invaluable to all milling machine users.

This Report Will Help to Cut Milling Machine Accidents

By ROBERT McKOWN

formerly Editor, British Journal of Industrial Safety and Industrial Accident Prevention Bulletin

THE steady rise in the number of milling machine accidents, especially during the war, led to this subject being discussed at a special session of the National Safety Congress in 1945. Arising out of this discussion a committee was set up by Sir Wilfrid Garrett, then H.M. Chief Inspector of Factories, to study the problem and make recommendations.

The committee were originally under the chairmanship of G. P. Barnett (as he then was), who relinquished the position on his appointment as chief inspector, and was succeeded by H. A. Hepburn. The other members of the committee represent makers and users of milling machines, together with two other members of the factory department.

A study of accident reports and statistics showed the committee that the great majority of accidents occurred on the simple types of milling machine, used by semi-skilled or unskilled operators on repetition work. It was therefore decided that, although the whole field would eventually have to be surveyed, the immediate policy should be to concentrate on the prevention of the bulk of the accidents, i.e., those occurring during repetition work.

The result of this decision was the publication in 1947 of the *Interim Report of the Committee on the Safeguarding of Milling Machines*, 1947 (H.M.S.O. 1s. 6d.), in which the committee made recommendations regarding the protection of cutters on production millers.

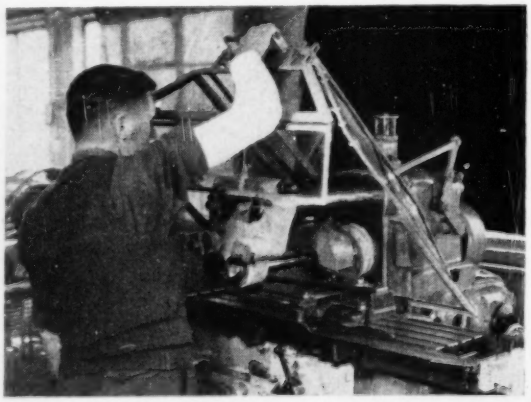
That the attention thus given to the subject has had its effect is suggested by the latest figures issued by the Chief Inspector of Factories. These show that the number of milling machine accidents is now fewer than 400 a year, compared with over 1,700 in the peak year of 1942. (In judging these figures it is necessary to remember—as with all machinery accidents—that the problem is more serious than the actual number of accidents suggests, because the consequences so often involve permanent disability through the amputation of part of the hand.)

Since 1947 the committee have continued their work, and they have now issued a further report, *Second Report of the Committee on the Safeguarding of Milling Machines* (H.M.S.O., 3s. 6d.), dealing with those types of machine which were not especially dealt with originally. The two reports, which are intended to be read in conjunction with each other, thus contain between them the committee's recommendations for the safeguarding of practically all types of milling machine and milling operation.

In both reports the committee have stressed the need to fence the whole of the cutter and not, as was at one time the practice, to aim at guarding the top part only. The standard laid down, as the one to be adopted whenever practicable, is complete enclosure by means of fixed guards (simple or compound) or by interlock guards. Automatic guards are also mentioned as an alternative but the mention of them is so brief that one is left wondering whether the committee is particularly enthusiastic about this method.

Since it is obviously impossible that any milling machine guard, whether fixed or interlocking, should be of universal application, the committee have made no attempt to lay down details of design. However, in this report, as in the earlier one, illustrations and descriptions are given of guards which are in actual use and which satisfy the demands of the standard recommended.

This standard, in the view of the committee, is applicable to the majority of commonly used manufacturing types of machine. With special purpose and large machines, however, the application of the standard may present undue difficulties in practice. Fortunately, the machines to which this limitation applies, are those on which the incidence of accidents is less than



An operator in the Vauxhall Motors Ltd. rehabilitation centre opens the interlock guard on his horizontal milling machine.
(H.M.S.O. photo.)

on the widely used manufacturing types.

Yet the desirability of secure guarding remains, and it is recommended that this standard should be adopted whenever the circumstances of the job permit. Failing this, recourse should be made to the best possible substitute, such as the use of trip or distance guards.

Non-repetition work on horizontal milling machines has generally been regarded as a special problem. As the new report points out, the operator of such machines is usually a skilled person who takes pride in his work even to the extent of objecting to complete enclosure of the cutter and the job, especially as such enclosure may interfere not only with any necessary gauging or measuring required, but even with a clear sight of the operating point or line of the cutter. As the eye of a skilled man is often a sure judge of the correct progress of the operation, any interference with clear vision leads to objections to what would be considered secure fencing, and these objections are often justifiable.

While recognising this objection, the committee none the less feel that guards should be provided for such operations with the object of preventing contact with the cutter, so far as is practicable. To this end, the closest examination should be made of the cutter and set-up when the matter is still in the drawing-office stage.

A Fallacy

Incidentally, the committee point out one important fact which is still not sufficiently realised. This is that horizontal milling machines which are exempt from the *Horizontal Milling Machine Regulations* are subject to the general requirements of section 14 of the main Factories Act, 1937. The idea that certain horizontal milling machines are exempt from all legal requirements is a fallacy.

However, the committee have been less concerned with the letter of the law than with the laying down of what is virtually a safety code for all types of milling machine operation. Like all documents which are mainly concerned with basic principles, the two reports leave a good deal to the discretion and ingenuity of the individual factory occupier, but in the recommendations laid down, and the examples quoted, every user of milling machines will find most valuable assistance in the continual task of making his works safer and more efficient.

Realistic Exercise Proves Works Civil Defence Team

With the co-operation of the Royal Naval Air Service, the Civil Defence Officer of a North-West iron and steel works put his team to the test. The exercise brought into action all the works defence units, and was a great success.

FIVE fighter bombers swept in from over the sea. They attacked at roof-top height, "bombed" the steelworks and returned to "strafe" the area. As they flew off north they left behind a scene of chaos. Several fires had started. "Casualties" were numerous, some being buried under wreckage. The Civil Defence team went into action.

With this realistic scheme, G. A. James, Civil Defence Officer of Workington Iron and Steel Co., Cumberland, put his organisation to the test and found them efficient, cool-headed and very keen.

A warden was quickly on the scene. After a rapid estimate of the damage, he called into action units of the works fire brigade, Civil Defence and first aid organisations. Within a few minutes the fire brigade had the biggest fire under control. Civil Defence stirrup pump parties dealt with the incendiary bombs and doused a fire in one of the buildings. Rescue parties searched the wreckage for "injured." One woman was found buried under a shattered wall. She was dug out and her "broken collar-bone" treated. Before being put in the ambulance, she told her rescuers that a man was buried under a pile of debris.

They heard his faint cries for help. After nearly an hour's wreckage clearance, the squad found him and a first-aider crawled in to treat the victim's "broken ribs and ankle."

Works police were engaged in keeping back and, if necessary, arresting onlookers who were hampering the rescue workers.

A delayed action bomb exploded and a woman messenger, suffering from "burns" on face and hands, reported that another building had been destroyed. By this time all the "injured" had been rescued; after a search, two "corpses" were found.

Half-an-hour before the exercise was due to end, the area had been

Attack from the air.

Fire-fighters go into action.

Fire brigade on the job.

cleared — an achievement which reflects great credit on the various units taking part. Considering that this was their first exercise, there were few faults, and these were minor ones. The assistant secretary of the United Steel Companies (to which the Workington company belongs) said he was more than satisfied, and the umpires endorsed his remarks.

All incidents were unrehearsed, and first-aid personnel had quickly to size up the "injuries" of the volunteer casualties and apply the correct treatment. The works doctor, congratulating the first-aiders, said treatment had been right in every case.

Mr. James is to be congratulated on the success of this exercise. He and his company now know that they have the nucleus of a well-trained Civil Defence organisation. But—more recruits are urgently needed.

N.B.—Mr. James's headquarters are known as Atomic Villa.

The rescue squad help the first-aiders.

Rescue from a roof—a tricky business.

"Casualties" at the ambulance station.

How to Start a Works Film Society

By PAT BOWMAN

Inclusion of a film society among the organisations of a works social club has much to commend it. Corporate activity and critical discussion are encouraged. Education, both liberal and technical, is enhanced. And amateur film-making can be an absorbing collective interest which is very good for morale.

WHILE no industrial psychologist or welfare worker can afford to ignore the enormous social influence of the commercial cinema, the advantages that a flourishing film society can bring to factory welfare are too often overlooked.

First of all, a well-run film society is a corporate activity. In this it differs from commercial film-going, where the hypnotic effect on the viewer of sitting in warm, dark comfort and watching brilliant moving images is only now becoming understood. The conditioning of the habitual filmgoer's attitude to work and society is giving increasing cause for alarm.

A film society can help to combat this by creating a critical outlook, fostering a selective attitude of mind, and encouraging its members to become articulate in debate and discussion.

An additional advantage is that a number of other activities that can grow from a film society. Amateur film-making is a collective interest that rapidly becomes absorbing and a works group based on a film society has the inestimable assets of facilities for showing its work, and a receptive and ready-made audience.

Specialised subjects, such as science, travel, safety and health, can well be studied through the film, as can technical processes, research and equipment. This form of education without tears can be enhanced by a film-making group who can make their own movies of methods and processes in their own works, as well as recording sports and social events.

In view of the almost universal interest in the cinema, there is little difficulty in attracting an initial membership by putting on popular programmes, but to maintain enthusiasm and build up a loyal group a number of decisions must be taken.

The first of these depends on what facilities are available. If there is a suitable hall on the premises, or centrally situated, where there is a reasonable degree of comfort, so much the better. If not, a society able to raise sufficient numbers can hire a small cinema or part of a large one on a Sunday afternoon, providing there are no local licensing objections. The cinema manager will gladly advise about this.

The main advantage of hiring a commercial cinema is that it is then possible to show 35 mm. films, which gives the society a far wider choice of recent productions.

In spite of the more restricted choice of films, however, most of the 300 film societies in this country run successfully on 16 mm., commonly known as sub-standard. While the cost of a 35 mm. projector is prohibitive, a good 16 mm. sound projector with amplifying equipment can be bought for about £250 to

£300. Hire purchase is usually available or it is possible to hire a complete outfit, including a screen, from any large photographic dealer.

A competent projectionist is essential; nothing can be more damning to a programme's success than elementary technical hold-ups. Rather than allow a keen but not wholly proficient amateur to try his hand, it is worth hiring a professional. Here again, a photographic store will be able to help.

Finance

It is essential that the financial basis of the society be decided upon from the start. Income may come solely from annual or seasonal membership subscriptions, or from nominal subscriptions plus admittance fees for individual programmes. The latter is liable, of course, to lead to varying receipts according to the popularity of the particular programme, although this can be balanced if members are allowed to bring a limited number of guests at an additional charge.

Expenditure is divided into four groups:

Hire of films;

Hire of projector or recovery of its cost;

Hire of hall and projectionist, if these are necessary; and

Printing, postage, stationery and so on.

For a society using 16 mm. film, which is non-inflammable, most insurance companies will provide "umbrella" coverage for a very low premium.

It must also be determined from the outset whether the society is to be self-supporting (in which case its officers and committee will have to budget for their activities with care), or whether the management are prepared to subsidise it.

To get things going, put on an attractive film show free of charge, with a simple inaugural meeting to follow. The society must elect a chairman, a secretary, a treasurer and a committee to select the programmes.

The popularity of the society depends on its showing the films its members want to see, and only in time will the tastes of the membership become apparent. Requests should always be respected, and suggestion boxes or ballot votes can give useful guidance, although many requested films will inevitably be found to be unobtainable.

Selection is essentially a committee job, and all group interests must be represented. If a cinema is being hired, the manager should be co-opted to the committee, as his experience will be invaluable. The society's treasurer must, of course, have a voice in the bookings, as programme building on a limited budget is often a difficult task.

Probably the most effective way of drawing up a series of programmes that is not too inconsequential is to work to a central theme, the broader the better, such as: comedy films from different nations; spectacle films through the years; the outdoor film, yesterday and today—the choice is limitless.

There is generally a demand for revivals of films which older members recall with pleasure. Although the presentation of past works of merit is one of the most valuable functions of a film society, silent films and early sound productions should be introduced with caution. The idiom of the film has changed greatly and today's audiences have almost to be re-educated to an appreciation of the excellences of yesterday's films.

Something similar applies to Continental productions when the audience is not accustomed to foreign dialogue with English subtitles. Careful choice of a popular and easily-understood subject—comedy is usually the safest—will overcome this difficulty.

Although it is useful to have on the selection committee someone with a knowledge of the historical development of the cinema, societies should beware of giving way too much to any enthusiast who wants to show silent Russian and German classics. These are not appreciated by the average audience until a genuine interest in the growth of the film as an art form has been awakened, and this takes time.

Much valuable assistance can be given by the British Film Institute, 164 Shaftesbury Avenue, London, W.C.2. This offers corporate membership for societies for £5 a year. The main advantage of this is the hire of films from the unique selection in the institute's catalogue at reduced fees; also provided are magazines, an illustrated wall sheet, a lending library, an information service and visiting lecturers.

For 25 guineas the institute offers industrial membership to organisations which require information and advice on all film matters in addition to assisting in "those welfare and education schemes in which the film as a means of entertainment and instruction, can play a valuable part."

Booking Programmes

One of the most burdensome tasks of a film society secretary is booking the programmes. Much of the trouble involved can be overcome by using the booking agencies operated by the two federations of film societies, which also offer film viewing sessions and other services for a low fee.

For England and Wales the secretary of the Federation of Film Societies is Mrs. M. Hancock, 35 Priory Road, Sheffield 7. The address of the Scottish Federation of Film Societies is 6-8 Hill Street, Edinburgh 2.

Any amount of paper work in dealing with the numerous commercial and industrial film libraries and the 16 mm. hire departments of the distributing companies can be avoided by using the services of the federations.

Finally, it should be remembered that any society that pays too little attention to presentation will soon lose support. Hard seats, a bare hall, that schoolroom atmosphere, inefficient projection, long intervals and late starts will send the audiences away longing for the showmanship and comfort of the commercial cinema.

Ushers with torches, a clean screen clearly visible from every seat, and, where only one projector is available, an explanation of the necessary halts for reel changes cost nothing. But they help a great deal towards creating the friendly atmosphere which a film society can, and should, offer.

EDUCATION WITHOUT TEARS

- **Specialised subjects, technical processes, research and equipment can be studied through films.**
- **The works film society can make their own movies of the company's processes and methods.**

Where does the personnel manager fit in? The chairman sums up the brains trust's views. Left to right, Graham Hutton, B. Ungerson, Miss M. Batten and Dr. A. T. M. Wilson.

What are the precise responsibilities of the personnel manager? Can he or she replace the employer's direct interest in his work-people? Where does the position of personnel officer rank in the management hierarchy? Delegates to the annual conference of the Institute of Personnel Management heard some controversial opinions on this subject. They heard, for instance, this

Top Management View of the Personnel Officer's Job

"HIGHER management has no real knowledge of where the personnel manager fits in," declared Graham Hutton, company director, author and broadcaster, at the annual conference—held in Harrogate from October 10-12—of the Institute of Personnel Management. Mr. Hutton, it appeared, had hit the nail on the head, as he often does; for throughout the conference differences of opinion as to the precise responsibilities of the personnel manager were made manifest.

Listen to higher management on the subject.

"The existence of federations is no substitute for good relations within the firm itself, in which the personnel officer can play an important part. The personnel officer should be a member of the management team, and while nothing can replace the direct interest of the employer in his people, in a large concern the employer cannot know everybody, and it is then the duty of the personnel officer to advise him of cases needing his attention."

So said Sir Cuthbert Clegg, chairman and joint managing director of Clegg and Orr Ltd., chairman of the Cotton Spinners' and Manufacturers' Association and a past president of the British Employers' Confederation.

On the other hand, the Minister of Labour (making the opening speech of the conference) said that while the existence of a personnel department did not, of itself, guarantee the quality of relationships in a firm, it was equally a mistake to assume that personal contact between employer and employee was the key to the problem, and that all that was necessary was a return to small units of production. "Contacts between individuals may, I am afraid, as easily result in bad as in good relationships," said Sir Walter.

For some reason difficult to understand, he went on, managements preferred to take *ad hoc* decisions on human problems in their factories, even though such decisions resulted in a sense of injustice. Such problems above everything else required consistency of treatment. There was still need for research, but the knowledge we already had about the factors which influenced relationships in a firm was immense. He was not so sure that we could be proud of the extent to which the lessons learned had been applied over the greater part of industry in this country.

Discussing personnel management with Mr. Hutton were Miss M. Batten, principal of the William Temple College, and Dr. A. T. M. Wilson, of the Tavistock Institute of Human Relations. At its best, said Dr. Wilson, personnel management was a specialised rôle with both advisory and executive functions; at its worst it was a façade.

Both Miss Batten and the doctor attacked jargon. "Youth movements," said Miss Batten, meant boys and girls; instead of "human relations" should we not talk about "men and women"? Dr. Wilson used as an analogy the doctor at the death bed who saw before him not a dying human being but a failing cardio-vascular system.

Model Address

In a witty and informative address which was a model for all conference speakers everywhere, Lord Terrington, chairman of the Industrial Disputes Tribunal, explained the work of his tribunal. They were, he said, the successors last year to the wartime National Arbitration Tribunal, which during its eleven years' existence had issued 1,723 awards. The Industrial Disputes Tribunal had heard 276 cases and issued 248 awards. Of the 187 unions in the Trade Union Congress, the tribunal had had 182 before them.

Although members of the tribunal came from a variety of occupations, in more than 90 per cent of the cases their decisions were unanimous. The tribunal was completely independent of Government influence.

Popular Goggle

EYE-PROTECTING goggles have had some prejudice to overcome, but one model which seems to have won general acceptance is the one-piece, or box type. This goggle is light and comfortable, and can be worn over spectacles.

Among variations of the one-piece goggle are chemical multi-purpose, heavy duty, anti-glare, furnace inspection and welding models. Examples are on view at the Safety, Health and Welfare Museum, Horseferry Road, London, S.W.1.

Ideas to Raise Productivity

ATOMIC energy speeding production by furnishing a cheap and plentiful supply of industrial power; a time saver in the form of a simple prop to hold open the lid of a laundry basket; a works campaign to "save the seconds"; these are but a few of the ideas shown at the recent Northern Productivity Exhibition organised by the Northern Regional Board for Industry.

A simple idea in a cleaning and dyeing firm helped to increase over-all productivity of the works by 33⅓ per cent. The lids of baskets used in the despatching and finishing of articles were being opened 3,000 times each day. The improvement? Propping open the lids of the baskets and leaving them open until they were ready for despatch.

Saving Manpower

Work study was well featured with a very wide range of examples. One, a C.W.S. live exhibit, illustrated the conservation of labour on machines which curl the edges of the bottom part of tin canisters. Two machines were previously tended by two operators who fed in the pieces one at a time. Now the machines have been linked by means of a central hopper and chutes so that only one operator working rhythmically with both hands is required.

Psychromatics (colour and light in industry) was demonstrated by Holland & Hannen and Cubitts Ltd., with the British Colour Council, the accent being on increased productive efficiency resulting from improved visual conditions in factories. The latest support for this claim comes from a Sheffield steel firm who report a direct rise in production of 10 per cent at increased efficiency, while absentees have been cut by 50 per cent following the installation of one of these schemes.

The vital rôle of safety in the factory was emphasised in a large pictorial display by the Safety, Health and Welfare Department of the Ministry of Labour.

Other items featured: Workers' suggestion schemes, technical education, and the efficient and economical use of power.

A model of GLEEP, Britain's first atomic pile, and a pictorial plan of a nuclear power station were reminders that this country is at work on peaceful uses of atomic energy.

New Productivity Council

THE British Productivity Council, which is taking the place of the Anglo-American Productivity Council, has been formally established under the chairmanship of Sir Peter Bennett, M.P. The council, which is on a broader basis than its predecessor, aims to interest industry in higher productivity and give it all help in its independent activities.

In addition to the British Employers' Confederation, the Federation of British Industries and the Trades Union Congress, the council will include representatives of the British Chambers of Commerce, the National Union of Manufacturers, and the nationalised industries. The vice-chairman is Lincoln Evans, general secretary of the Iron and Steel Trades Confederation, who was one of the joint chairmen of the Anglo-American Productivity Council.

Retail Efficiency

ALTHOUGH shop employees in the United States appeared to work no harder than their British counterparts, food retailing in America accounted for a smaller proportion of the national manpower, according to the report of the productivity team which studied retail distribution. This higher productivity was due to better packaging of goods, extensive mechanisation behind the shop, concentration of business in a relatively smaller number of larger shops, absence of credit and delivery services, sale of all kinds of goods in one shop, and widespread self-service methods.

The team recommend that self-service stores could be introduced widely in Great Britain without creating unemployment or reducing wages. The team found many retail shops in America which kept open until 9 p.m. or 10 p.m. on six nights a week although the staff only worked a 40-hour week. This was achieved by employing part-time staff, including housewives and students.

Work Study Training

PROPOSALS for the selection and training of work study staff in industry as a means of reducing costs, improving efficiency and measuring and comparing productivity are made in a report issued by a joint committee of the Institution of Production Engineers and the Institute of Cost and Works Accountants.

The report points out that there are serious inconsistencies in time-study practice, and recommends a detailed syllabus as the basis for an accepted course and a recognised standard of competence. It also appreciates that time-study has often been a source of friction in industry, and considers that much distrust could be overcome by improving the training of work-study staff and through a better understanding of the subject by management, supervisors, technicians and workpeople.

The committee find also that insufficient use is being made of time study in industry today, and its more widespread application depends upon a full recognition of its value by management and on the efforts of properly trained staff.

Education of Technologists

AN inquiry into the relationship between vocational and non-vocational studies in the education of technologists is proposed by the National Institute of Adult Education in co-operation with the Association of Technical Institutions and the Association of Principals of Technical Institutions.

The proposal has been made because of a growing realisation among leaders of industry that technical education by itself is not enough. This applies to the entire range of management; from the foreman upwards, supervisors must understand the wider problems of industry as well as its technical processes.

Training Courses

LEEDS College of Commerce is now running full-time courses in "Foremanship." Two courses have been arranged to date—October 27-November 14, 1952, and January 12-30, 1953. Hours, 9.15 a.m. to 5 p.m. Monday to Friday. Fees, £3. Residential accommodation can be arranged for students outside the district.

Birmingham College of Technology is holding a series of full-time courses in the "Practice of Work Study." Each course lasts six weeks and is restricted to ten students training for, or holding responsibility for, work study in manufacturing industry. Hours 9 a.m.-5.30 p.m. Monday to Friday. Fees, 50 guineas. Residential accommodation can be arranged.

Railways Offer Incentives

A LUMP sum of up to £30 and salary increments of up to £50 a year are offered by the Railway Executive to members of railway staffs who improve their professional qualifications. Awards are open to those receiving £567 a year or less, exclusive of special allowances, and are graduated according to the seniority of the examination taken. For example, a pass in an intermediate university degree will automatically merit an increment of £25 a year; this rises to £50 for a final.

Christmas Greetings

The Editor and Staff wish all readers a very Merry Christmas and a Happy and Prosperous New Year.

A PIONEER PASSES

This photograph of Theodore C. Taylor was taken when he addressed the Co-partnership Conference at Oxford in the summer of 1951. He was then nearly 101. He is seen with his sister, on his right, and some of his staff.

WE regret to report the death on October 19 of Theodore C. Taylor, chairman and managing director of J. T. & J. Taylor Ltd., woollen manufacturers of Batley, Yorks, at the age of 102.

Mr. Taylor entered the family business in 1866 and became sole proprietor in 1892 when he introduced his pioneer scheme for profit-sharing in industry. The scheme proved a success from the start, and today more than 2,000 employees own over three-quarters of the capital.

He was tireless in his exposition of profit-sharing as a means of preserving industrial peace, and his scheme became a pattern for others established by firms in many parts of the world.

Wages News of the Month

CIVIL SERVANTS.—Wage increases varying from £15 to £50 a year have been awarded by the Civil Service Arbitration Tribunal to senior grades in the telecommunications branch of the G.P.O. and telephone sales supervising staff.

Claim for salary increases for more than 600,000 civil servants has been submitted to the Treasury by the staff side of the National Whitley Council. It is based on an increase of five points in the official index of wage rates during the first nine months of 1952.

CO-OPERATIVE WORKERS.—National wages board of the co-operative movement is considering claims for salary increases of between 2½ and 10 per cent on behalf of officials, managers and departmental managers. Also under consideration are claims for increases for waitresses and for optical and pharmaceutical workers.

COTTON WORKERS. — Unions in the cotton industry have approached the employers for a wage increase of 10 per cent for 265,000 workers in spinning and weaving mills.

ENGINEERS. — Confederation of Shipbuilding and Engineering Unions have accepted the offer of a wage increase of 7s. 4d. a week by the engineering employers and 7s. 6d. by the shipbuilding employers. The increases affect about 2,500,000 workers and will probably cost £40 million a year. The original claim was for an all-round increase of £2 a week.

FILM WORKERS.—Cost of living increase giving 11s. a week to all grades earning below £13 8s. has been agreed between the British Film Producers' Association and the Electrical Trades Union, the Association of Cine Technicians and the National Association of Theatrical and Kine Employees.

MINERS.—National Union of Mineworkers have accepted the tribunal's award rejecting their claim for 30s. a week increase, but have decided to put forward a new claim for an increase for all day-wage men.

RAILWAY WORKERS. — Railway Staff National Tribunal's recommendation for an increase of 7s. a week to adult male railway workers, with proportionate increases for women and juveniles, has been agreed by the Railway Executive and the unions. Adult women are to receive an extra 5s. 6d., junior males 4s., and junior females 3s.

WOOLLEN WORKERS.—Woollen workers in Rochdale have applied to the Rochdale and District Flannel Manufacturers' Association for a wage increase.

Wages Up By £707,000

ABOUT 2,110,000 workers received aggregate weekly wage increases amounting to about £707,000 in September, according to the *Ministry of Labour Gazette*. This is the highest figure for some months. Principal increases went to workers in the distributive trades, electricity and gas supply, bus workers, laundries, boot and shoe, and furniture manufacture. The index of wage rates rose by one point in 131 in September, and the index of retail prices went down one point to 136.

Industrial disputes during September accounted for a loss of 106,000 working days, compared with 168,000 in August, and 113,000 in September last year. Working days lost in the first nine months of this year total 1,445,000 compared with 1,448,000 in the same period in 1951.

More Juveniles

A SLIGHT increase in the number of boys and girls entering employment in 1951 was recorded in the October issue of the *Ministry of Labour Gazette*. The total number of boys was 277,277 compared with 273,169 in 1950, and the number of girls was 265,076 compared with 263,456.

About one-third of the boys leaving school took up apprenticeships to skilled crafts. There was a slight increase in the number of boys who began apprenticeships in the metal and metal-using industries, but there was a reduction in the number of girls entering apprenticeships to skilled crafts.

More than 5 per cent of 16-year-olds went into employment leading to recognised professional qualifications compared with ½ per cent in the younger age group. The number entering the professions was higher among those who started work at 17—about 11 to 12 per cent—but the number who took up apprenticeships was correspondingly lower in this age group.

Dockers Idle

RESTRICTIONS on imports, decline of exports, and the recession in textiles have resulted in unemployment for about one-fifth of Britain's 79,000 dockers. In consequence, the National Dock Labour Board, which has to pay idle dockers their guaranteed weekly minimum of £4 8s. under the dock labour scheme, has been forced to raise the levy paid by employers from 16 to 22½ per cent. At present the Board is paying out about £70,000 a week to men for whom there is no work.

Unemployment up Again

TOTAL number of unemployed at October 13 was 397,900 (1.9 per cent of the estimated total of employees), an increase of 8,300 since September 15. Of the total, 139,800 had been unemployed for more than eight weeks, 47,200 were temporarily stopped. The number of workers unemployed in textiles decreased by 18,500. The two Midland regions maintained the lowest levels of unemployment, .8 to .9 per cent. The North-Western region and Scotland were highest with 3.3 per cent and 3.2 per cent respectively.

The number of people in civil employment fell by 22,000, mainly due to redundancy in the hotel and catering industry. Main increases in manpower

were in textiles, clothing, engineering and metal goods, vehicles, metal manufacture, chemicals and "other manufactures."

In Brief

National Coal Board has arranged for miners to take their second week's paid holiday in 1953. Last year, in an effort to increase production, the miners agreed to forego the second week, for which they received payment in lieu.

* * *

A register of accommodation to help workers who are strangers to the town to find lodgings has been planned by a group of Redditch welfare officers. Householders with vacancies are asked to inform the W.V.S., who recommend addresses to applicants.

* * *

A claim for damages against the employers of a painter who was killed when he fell from a scaffold was lost by the widow in a recent case at Gloucester Assizes. For the defence it was stated that the man left his ladder and climbed down the scaffolding, which gave way. He did not have permission or authority to go to any part of the scaffold other than that which was boarded and to which access was gained by his ladder.

* * *

Federation of British Industries has awarded fifty scholarships for the training in Britain of engineering graduates from Latin America. Training will be undertaken by individual British firms.

* * *

Birmingham and District Industrial Safety Group is to hold its second Safety and Factory Efficiency Exhibition at Bingley Hall, from June 19 to 26, 1953. During the exhibition the group will also hold a conference on safety, health and training.

* * *

Overtime was banned for between 4,000 and 5,000 employees at the Pressed Steel Company Ltd., Cowley, by the Transport and General Workers' Union after unsuccessful negotiations to obtain a general pay increase of 1d. per hour—granted to a small section of employees last March.

* * *

C. R. Morris, vice-chancellor of Leeds university, has been appointed independent chairman of the joint advisory committee for the wool textile industry. The committee has been set up following the recommendation of the wool working party to provide for joint consultation in the industry at national level and to advise the Government and the industry.

* * *

Over ninety members of the Industrial Safety Officers' Section of Ro.S.P.A. attended the sixth annual conference at Dorking in October. The opening address was given by Sir Robert Hyde, of the Industrial Welfare Society. A paper on "The Law and Our Liabilities" was given by Miss I. Sturgeon (I.C.I. Ltd.) and one on "Presentation and Use of Safety Specifications" by A. G. Palmer (North Thames Gas Board).

THE MINISTER SAID . . .

Answers to Questions in the House

Notification of Vacancies Order.—The only restriction imposed by the Notification of Vacancies Order was the obligation upon employers to engage labour through exchanges or scheduled agencies, and the labour situation was not yet such as to make it possible to abandon this control.—(*Parliamentary Secretary, Ministry of Labour and National Service*, October 14.)

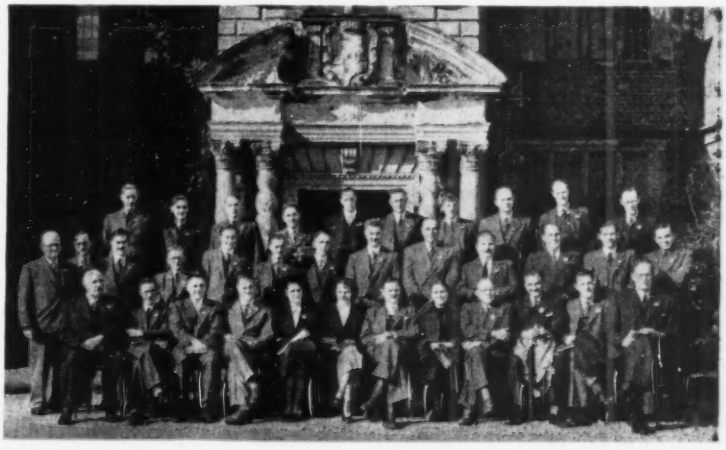
Mining Fatalities.—There were 209 fatal accidents in coal mines and three in metalliferous mines in 1952, compared with 287 in coal mines and two others in 1951.—(*Minister of Fuel and Power*, October 14.)

Dangerous Machinery.—Owing to the difficulties of emergency legislation, the Government turned down a suggestion that the Factories Act should be amended to extend its provisions to shop workers, warehousemen and others called upon to operate dangerous power-driven machinery, such as bacon slicers, until the recommendations of the Gowers Report were implemented.—(*Minister of Labour*, October 16.)

Rehabilitation of Disabled.—The Government were considering a recommendation of the National Advisory Council on the Employment of the Disabled that a committee be set up to inquire into all aspects of the rehabilitation and resettlement of disabled persons, and a statement would be made as soon as possible.—(*Minister of Labour*, October 20.)

Lung Cancer.—The Medical Research Council were aware of the results of an investigation into the incidence of lung cancer among gas workers in a former London gas company, and the possibilities of making further enquiries into this problem were being considered. — (*Parliamentary Secretary, Ministry of Works*, October 21.)

UNIVERSITIES AND INDUSTRY MEET



TWENTY-FIVE University appointments officers, guests of the General Electric Co. Ltd., at Castle Bromwich Hall, one of the firm's hostels for apprentices, learned of the scope offered science and engineering graduates within the company and of the present needs of the electrical engineering industry.

About 150 graduates join the company's staff every year, and about 90 per cent. of them take up appointments after completion of training. The G.E.C. is a world-wide organisation operating some forty factories and employing about 60,000 people. Opportunities involving a high degree of responsibility are constantly occurring and there is ample room for many more engineering graduates. After training, openings are available in research, design, production, sales and erection departments of the company.

The conference, which lasted two days, was addressed by the company's staff manager, education and training officers and other executives, and visits were arranged to the company's works at Witton and Coventry where the tours were conducted by some of the graduates who are at present in training.

Christmas Fare in the Canteen

By WINEFRED YEOMANS

Catering Manager, Daily Mirror Newspapers, Ltd.

Christmas catering in the canteen must be planned. With good organisation, and thorough supervision, the cost of the "extras" can be covered and an enjoyable, well-fed celebration for all assured.

A gay little Christmas set piece for the the servery or tea bay. It could be enhanced with crackers, fruit and balloons if space allows. Customers appreciate such homely displays.

FIRST, I must wish all industrial canteens a happy, busy and successful Christmas!

Now we come to the hard facts that lie behind and follow a "jolly good Christmas day at our canteen." Priority No. 1: planning with paper and pencil, ready reckoner or slide rule, prices and two lists, one of suitable goods already *in* stock and the other of goods available on the market.

The better your refrigeration, the better can be your housekeeping and the easier will be the preparations. Now, although you cannot make your 40 per cent. on the Christmas dinner you can cover outgoings very nicely and trust to other days to pull up your overall percentage for the month. This will mean good organisation and very thorough supervision of every product and process.

I believe turkeys can be bought straight from the farm at something between 5s. 1½d. and 5s. 9d. per lb., with carriage extra. They can probably be bought from your supplier somewhere between 5s. 3d. and 6s. per lb. Boiling fowl—five and six pounders—the meat of which can greatly help your service, may be around 2s. 6d. and 2s. 9d. Gammons are plentiful and category C green bacon and gammons are available as a further material help to a "good plate."

How much will you require? Normal restaurant portioning gives five to six servings per lb. of bird, gross weight. That shows a heavy loss, just like that, but you will make up on the carcases and the pickings, all of which are covered in the initial costing on gross weight. With a little chicken meat, a chipolata sausage, and/or a slip of gammon, plus stuffing, sauce, roast potatoes and sprouts you will work out a really good dinner costing 2s. a head. On to that goes the pudding and its sauce, tea or coffee and maybe (if you have a licence) a bottle of beer or cider or a small sherry. Those items cost another 1s.

It will read like this: Turkey and full trimmings, pudding and sauce, hot beverage, 2s. 3d. With a drink 3s.

Dinner for "Diets"

For diets a tray of white meat, bread sauce instead of seasoned forcemeat, a slice of mild ham, mashed potatoes and sieved carrots or cauliflower, a nice trifle instead of Christmas pudding, must be prepared. For those who simply cannot eat meat of any sort, then a few fillets of plaice or Torbay sole would be a treat.

Multiply this individual cost by the number of meals (allowing for extra customers), place that figure by the side of the figure you intend to charge, then work out what you'll get on the "overs"—soup and stock from carcases; meat, flaked or minced, for sandwiches and a dish such as turkey noodles; turkey fricassee; pasties; *vol au vent;* part ingredients for chicken and ham croquettes; and you will see how you get your money back, plus.

Plan the preparation and service well beforehand.

Preparation. If you are having brussels sprouts buy early before the market does a rocket. Get all staff with a few minutes to spare to do a few sprouts to help the vegetable preparation. When trimmed and washed they may be placed in bundles or containers in the cold refrigerator.

The forcemeat can be made and steamed off in trays for easy portioning. Apple and bread sauce can be made, gammons cooked, skinned and crumbed. Dress and roast the birds, and do have them well covered with greaseproof paper and slowly cooked after flashing up to a sealing temperature. Boil the fowls gently and thoroughly in nicely seasoned "bouillon." Clean and cook giblets. Any liquor obtained must be thoroughly and quickly cooled then put away in the cold refrigerator. By "cold," I mean the reserve and *not* the larder refrigerator to which people have frequent access.

Carving and Portioning. Here is where your money is made or lost. Do not have birds carved straight on to plates or without proper plan-

ning. Have sharp knives, swabs and boards in readiness. You want debris dishes, a dish for charred bits of bone, string, etc., which, with muddling operations, get mixed up with the good meat and good debris.

Trays containing so many portions, complete and ready for plating, are made up thus: First remove legs and short wings and wish bones. One person will carve off the tender dark meat and lay it down one side of the tray. White meat in proportion is laid down the other side, in the middle go your slices or wedges of forcemeat.

Check on Service

This finished tray is marked with the number of portions it contains, so, "Tray 1 . . . . twenty portions." Chef or cook in charge copies that note on to the kitchen record slip so that it is known at any moment what is ready and how much there is in terms of portions. This is an essential check on service as well as on supplies. The office can also check performance and usage.

The flow of service is then carried through with the other items which make up the complete plate. All staff concerned with this should know exactly what makes up the dinner.

The Pudding. Some canteens may buy their puddings, most will make their own. I must confess I do not like Christmas puddings cooked in sleeves, so I always have mine done in individual basins and pudding basins of the 8- to 10-portion size. Incidentally, if you can get hold of some ex-Army type metal basins they are a good "buy"; very stout and serviceable and standing up to re-tinning again and again.

Here is my recipe, which I know is in use in many large establishments. It makes a rich, admirably dark pudding which is easy on costings and usually gives great satisfaction:

- 8 lb. chopped suet or melted margarine
- 8 lb. flour, ¼ lb. golden raising powder, ½ oz. salt
- 4 lb. breadcrumbs, preferably some brown
- 4 lb. brown pieces sugar or Demerara
- 4 lb. golden syrup or 2 lb. golden and 2 lb. black treacle
- 2 lb. shredded raw carrot
- 1 lb. shredded raw beetroot
- 2 lb. shredded raw apple
- Rind and juice of 2 lemons and 2 oranges
- 4 lb. dates, chopped fine
- 4 lb. raisins, seeded and chopped or minced
- 4 lb. currants
- 4 lb. sultanas
- 2 lb. chopped candied peel.
- ¼ lb. allspice or mixed spice—or more if liked
- 2 oz. powdered ginger
- 1 grated nutmeg
- 1 dessertspoon each of ratafia, vanilla and almond essence
- 1 quart old ale, or brown ale
- Coffee and milk to mix, with water to make up to requirements
- Eggs, as can be afforded, 10 to 40; namely, ¼ to 1 lb. dried egg.

Note: Flavouring may be adjusted to taste. If lemons are not used, then lemon essence must be balanced by citric acid to provide that pleasant sharp tang associated with lemon juice: 1 level teaspoon being equal in acidity to juice of 2 lemons.

The above ingredients provide about 720 oz. dry solids which should suffice for 600 pudding portions for normal appetites.

Sauce. I do not like the ordinary custard served on Christmas pudding. A nice, creamy white sauce, flavoured with lemon and sherry or rum is best and much appreciated. Have the rum or sherry measured in each lot of sauce as it goes to service: do not tip the lot into the bulk pan of sauce for it may curdle it.

An entertaining but inexpensive bit of nonsense for Christmas decoration. The hollowed-out and "sculptured" pumpkin costs only a few shillings. (This one was 4s. 9d.) It has an electric lamp inside and a 6d. paper hat on top.

Gravy should be glossy, slightly thick and very hot. Instruct staff *not* to serve it like soup, smothering everything on the plate which is a slovenly, uneducated trick. The same applies to pudding sauce, though more should be available to those who specialise in making pap of their meals.

Trifle. Sherry flavoured, clean and simple and not heavily creamed should be on service (though not all out) for people who cannot manage pudding after the dinner dish. "Diets" should like this.

Mince pies may be served at dinner as an alternative to the pudding or they can be served for tea. They should be warmed. If the mincemeat is not sharp in flavour have a little lemon or some shredded raw apple incorporated in it. Have a good pastry for them.

The Christmas Cake. Canteens who operate their own P.S.P.2.A. permits with their own bakery are the lucky and sensible ones for good, varied home-made cakes make money and contentment. Where display is limited it is a good idea to make a gay little display on or near the counter and in the tea bay. A prettily iced cake stimulates interest, while cake of similar character is sliced for sale. Very deep slices are awkward to serve and eat and uneconomical. Marzipan of the soya type is inexpensive and quite rich enough for the festive cake. The icing can be a simple fondant in white or pale tints; a nob of margarine melted and added to icing sugar, or the mix made with hot milk, well beaten, gives a pleasant gloss. Remember that slight lemon sharpness. Icing is nice when mixed with pineapple juice.

SOYA MARZIPAN

- 4 lb. soya flour
- 2 lb. margarine
- 2 lb. granulated sugar
- 1 lb. castor or icing sugar
- ½ teaspoon salt
- 1 or 2 tablespoons almond essence
- 2 tablespoons lemon juice or equivalent acid
- ½ to 1 tablespoon ratafia essence
- 1 pint

Method: Melt the margarine in water, remove from heat and stir in salt and essences and the granulated sugar. Beat in the soya flour and return to heat for a minute, beating well. Keep the pan over just enough heat to bring marzipan to simmering point, draw off the heat for a few minutes and then turn it out on to the slab.

When paste is cool enough to handle, knead it well with the castor and icing sugar. Divide up and weigh in lb., keep covered. When quite cold, mould and roll as required. Brush cake with jam glaze before applying the marzipan coat.

This paste can be tinted and used for filling dates which make an attractive side dish at Christmas.

Nottingham Industrial Accident Prevention Group have decided to form a junior group similar to the one operating successfully in Birmingham.

RECENT FILMS REVIEWED By PAUL NUGAT

Cartoons Are Good Teachers

PROBABLY because the cartoon is associated in most people's minds with fun for fun's sake, it has been sadly neglected as a medium of instruction. To remind one forcibly of its power of leavening a homely lesson with humour without sacrificing the point of that lesson comes "Service," a ten-minute Technicolor cartoon.

Improving the forecourt service of our petrol stations has been a preoccupation with all the oil companies. It is also the aim of this cartoon made for the Anglo-Iranian Oil Co. by Halas and Batchelor Cartoon Films Ltd.

Briefly, the story of "Service" begins at a wayside petrol station with a lugubrious petrol station proprietor, wondering why a rival petrol station across the highway is doing all the business. The contrast between the ramshackle condition of his own forecourt and the one opposite indicates the film's general outline. The mere decision to modernise the exterior of a petrol station is in itself insufficient to attract custom, unless it is accompanied by polite, alert, and efficient service. This is Lesson Two.

The rest of the film is devoted to an amusing elaboration of all the points which go to make a petrol salesman worthy of the B.P. badge. The presence of the B.P. sign on the petrol pumps and overall is the only concession made in this film to the private interests of Anglo-Iranian. For once, advertising and education are not at loggerheads.

SELLING

"SPECIALITY Selling" is a first attempt, in Britain at least, to use the cinema to help would-be commercial travellers to an understanding of first principles in making an approach to a prospective customer. The film follows closely the syllabus of a correspondence course on salesmanship and is, in fact, largely a recapitulation of the essential points of the first lessons. Naturally, it will be of greatest benefit to the students of the National School of Salesmanship, who are sponsors, but sales managers will find it worth the borrowing for the training of potential salesmen.

ENGINEERING

APART from part-time work in industry, it is the educational industrial film made "on the premises," which is forging strong links between the universities, technical colleges, and industry.

The latest contribution to the technical film libraries in these establishments comes from Babcock and Wilcox Ltd., with films on "Forging" (running time 12 min.), "Seamless Tube-Making" (17 min.), "Welding in Boiler Manufacture" (18 min.), "Foundry Practice" (26 min.). All four films are basic in that they deal with fundamental engineering processes, and then proceed to show their special application within the works of this firm. The essential value of these films is a background material to a course of lectures and as a replacement of the factory visit, which is usually too cursory to be truly effective.

Within this field of heavy engineering, any firm conducting their own apprenticeship training will find the borrowing of these films to their advantage.

HANDLING

THE large miscellany of industrial jobs in which mechanical handling equipment can be profitably applied emerges very clearly from the film "Conveyors as Your Servants." This film has been produced by John Byrd Film Productions for the Mechanical Handling Engineers' Association, as a supplement to their five-part film "Mechanical Handling."

In a running time of 38 min., the film shows the mechanical handling of books in a university library, of messages at a cablegram station, of food, of the leaves of steel springs for wagons, of bottling at a brewery, of a specially designed conveyor in a wool factory. The final sequence features a motor-car factory with mechanical handling applied to pressing, assembling, annealing, cleaning, priming, rustproofing, and painting.

The variety of the operations shown will certainly stimulate fresh thought.

NATIONAL SERVICE POLICY

Continued from page 245

not necessarily in his old department.

Follow-up.—The personnel department and the boy's supervisor should maintain the closest interest in him during the first few months after his return. Even in the largest firms sensible file-signalling can ensure that this is neither overdone nor underdone, so that visits to the workplace, chats, formal interviews, can be made on a reducing scale that suits the individual needs of each case.

FACTORY SECURITY METHODS

Continued from page 240

intervals throughout the night. Snap checks are also made by a mobile patrol of inspectors. Should the guard fail to report within 5 min. of the scheduled time, the duty inspector tries to get him on the telephone. If he cannot, he asks the information room at Scotland Yard to have a patrol car sent to the factory immediately.

In common with watchmen and security police, these guards perform an important secondary duty. They make excellent fire guards, and have, indeed, averted several serious outbreaks by their prompt action.

Internal security—the prevention and detection of pilfering by employees—is a knotty problem to which no firm seems to have found the complete answer. The most successful methods seem to boil down to this: storekeepers, like watchmen, must be very carefully selected, and there must be frequent checks on the issue of tools, equipment and "attractive" stores. Departmental heads must be responsible for locking up each day the attractive items in their charge. The right of search must either be included in a company's terms of engagement, or must be the subject of an agreed policy between management and employees (probably by means of a works council meeting). (See also PERSONNEL MANAGEMENT, WELFARE & INDUSTRIAL EQUIPMENT, July, 1952, page 66.)

How to Search

Each searcher must be provided with a typewritten authority which should be shown to the employee before he is searched. Employees should always be searched two at a time, so that one is a witness to the searching of the other. Searching must be haphazard, and very tactfully carried out. Everybody (including the managing director) should be liable for it. Car boots and motor-cycle pannier bags should not be overlooked.

For goods legitimately taken out of the factory, a pass-out chit should always be issued. Contractors' men and other "foreigners" should be issued with metal numbered discs or similar identity tokens.

How to cut absenteeism

The main cause of lost time in industry, according to the Medical Research Council, is sickness absence. Much of this absenteeism can be traced to the transmission of contagious ailments through the use of communal towels.

Roller towels mean waiting and congestion—lost hours—transmission of germs—expensive laundry bills.

Moisture Magnet—Hi-Dri towels absorb every drop of moisture. Will not disintegrate when wet.

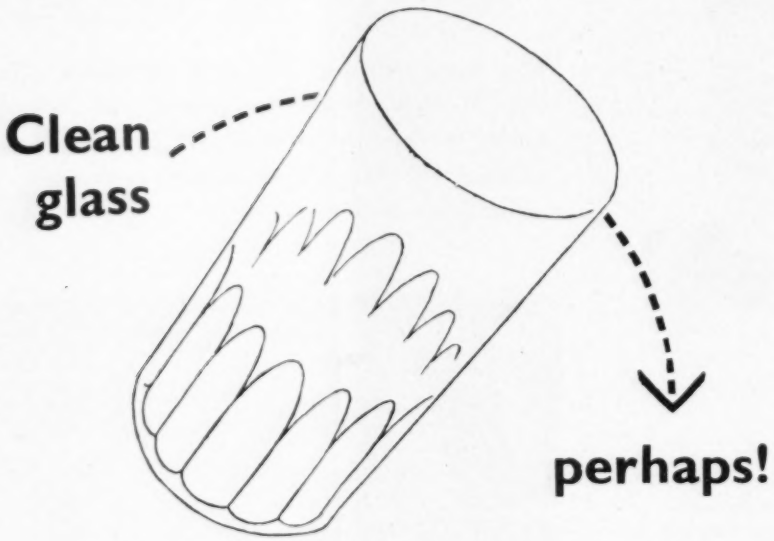
DISPENSER CABINETS SUPPLIED FREE ON LOAN

Hi-Dri
PAPER TOWELS

WITHOUT OBLIGATION

Write or 'phone today for details, or ask for a demonstration of Hi-Dri paper towels and further proof that they can help you cut absenteeism.

HYGIENE PRODUCTS (Gt. Britain) LTD., 11 Grosvenor Gardens, Westminster, London, S.W.1
Telephone: VICtoria 1951/2



A clean look is not enough:
you have *germs* to contend with!
Make glass, crockery, cutlery
clean *and safe* when washing-up
by following the

DEOSAN ROUTINE

Take note of this! Public opinion
in this matter is on the march . . .

The Deosan Routine is simple, costs little. It adds no "extra work" and kitchen staffs invariably like it. We'll send details on receipt of your address.

DEOSAN LIMITED Catering Hygiene Division, 345 Gray's Inn Road, London, W.C.1
(One of the Milton Group of Companies)

New Industrial Equipment

EXECUTIVES' SURVEY OF AIDS TO INCREASED PRODUCTION

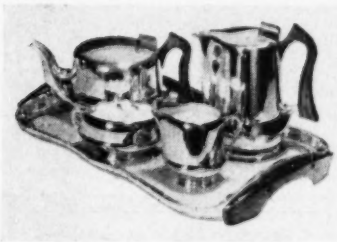
Readers who wish to have more particulars of any of the products referred to in this section are asked to write to the Editor, quoting the reference number which appears at the end of the paragraph.
We are always glad to consider for publication descriptions—preferably accompanied by an illustration suitable for reproduction—of new products.

CANTEEN

Tea-set for Executives

HERE is a tea-set designed for the director's table. Styled by Jean Picquot it is made in magnailium, a new metal which is neither plated nor coated. The set comprises a tea-pot, hot water or coffee jug, sugar bowl, cream jug and tray. It is stated that the only aids necessary to retain the polish throughout a life-time's use are soap and water.

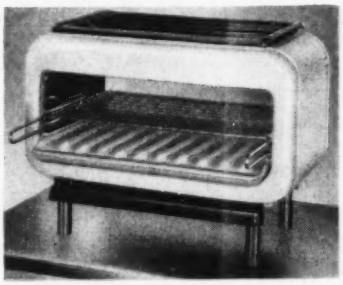
In addition to the tea-set, the items of which can be purchased separately or as a complete set, there is a kettle in the same range which has a hard-wood handle with a safety grip to prevent the lid tilting against the fingers. The kettle can be filled through spout or top. **(PM/567.)**



Griller and Toaster

THE makers of this new and compact gas griller state that it has been designed so as to facilitate convenient siting, to be suitable for use with either town or butane gas, to give quick, even toasting and grilling and for direct mounting on to table or counter. A 4 in. table stand or 36 in. high stand can be supplied with the griller. By use of a cast-iron, black enamelled separator plate it can be installed in double-tier formation and built into battery form as required.

Construction of the griller is of cast iron, the back and front castings are each in one piece and the inner and outer sides have an air-space between; a fluted, removable sliding bottom plate is fitted, and under this is an insulating plate to counteract heat transmission to counter or table.



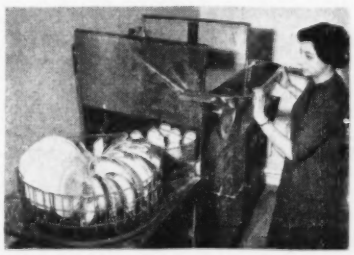
The lift-off top plate provides for the escape of products from the burners and can be used for keeping food warm.

The griller is available in either cream or grey dapple vitreous enamel finish, with black acid-resisting enamel top plate. **(PM/568.)**

Dish Washer

IN most dish-washing machines the dishes move about in the water. In this machine they remain static while the water moves around them. This method, it is said, results in a complete cleansing, eliminates all risk of breakages, and does the job in 30 to 60 seconds. As shown in the picture the dishes are stacked in trays.

The machine is operated by an automatic switch. The washing action is then carried out by fixed high-pressure jets of large diameter which spray the dishes from both sides, from above and below. Each jet is placed at a different angle from those of the other jets, this arrangement being designed to ensure that no part of any dish is missed. The tray is rotated by water pressure. The wash water returns to the wash tank through strainers, so that no scraps are circulated through the machine.



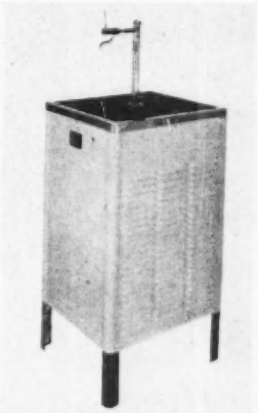
The rinse is carried out by the same method as the wash, fresh water being fed in from the rinse tank by means of a rotary valve. The fresh hot water from this rinse falls into the wash tank through strainers, and thus freshens the wash water. An overflow drain is fitted to assist in keeping the wash water clean and at the correct level.

The standard equipment comprises one dinner plate basket, one small plate basket, and two cup or cutlery baskets. **(PM/569.)**

Ice-cold Water

THIS refrigerated water dispenser delivers ice-cold water into a drinking glass or other container. It can be installed in the office or the canteen. A control is fitted at the foot of the central column to regulate the flow of water to individual requirements.

The dispenser is operated by holding a drinking glass under the water outlet and pressing the operating lever forward. On releasing the lever, the water shuts off immediately, without drips.



The refrigeration control is auto-

WELFARE EXPENDITURE

CAN BE REDUCED

Guaranteed saving of at least 20% on medical supplies, B.P.C. quality, approved by leading industrial users.

For full details and samples write Box... 511

matic, and is said to ensure the service of ice-cold drinks at any time of operation. About 200 cold drinks can be dispensed per hour, maintaining a 20 deg. F. difference between the ingoing temperature of the water and the water actually dispensed. An intermittent service will give a correspondingly greater differential between the ingoing and outgoing water temperatures.

A dispenser can also be fitted with a drinking fountain, which complies with the Factories Act. A jet of water is adjusted to rise not higher than 1½ in. at normal pressure. The bubbler control is operated by turning either way and automatically closes the water supply when released, so preventing waste. **(PM/570.)**

HANDLING

For Bulk Cleaning

THIS shovel-type bulk aerator tool is chiefly used for flue dust or for the collection of powderlike material such as cement, lime, flour, sulphur or zinc oxide. It requires very little handling and it is merely necessary gradually to ease the shovel into the dust pile, taking care to see that the orifice at the back of the

shovel be kept free for air inlet; the suction does the actual collection.

The round hole on the face of the shovel, as illustrated, regulates the amount of material entering. An air inlet at the back of the tool provides aeration. It is stated that these two items ensure that the tool can safely be dug into the substance without fear of choking either the tool or the hose. This flexible metallic asbestos packed hose is attached to the shovel and carries the dust or powder to a container. By using such a hose, it is said that red hot flue dust can be collected, as the shovel itself is fitted with two heat-resisting grips in a convenient position for easy handling. **(PM/571.)**

Vacuum Lifter

THIS vacuum lifter is designed to enable glass, tiles, plastic sheets, sheet metal and many other items which are awkward to handle to be lifted without risk of cut hands and trapped fingers. It is made of aluminium alloy and is available with one or two four inch rubber suction cups, as shown in the picture. A trigger release allows the sheet of material to be positioned where it is wanted.

Other advantages; Point of lift can be selected at will; buckling of limp materials is minimised. **(PM/572.)**

Labour Saver

DUBBED by its manufacturers "a one-man case conveyor," this device is designed to facilitate the moving of heavy, bulky cases, crates and similar packages. One man, it is claimed, can easily use it to handle loads (up to about 2 tons) which, with the old roller method, would otherwise be impossible without the help of two or three men. A chequered top plate provided with small domed studs prevents packages slipping off. Floor projections and ramps are negotiated by pushing the load at a slight angle over them. The load can be swung in any direction. It has been demonstrated that, with

Send your Christmas Greetings with NAPT Seals and Cards

Use these attractive Christmas seals on your letters and parcels and help to conquer tuberculosis Christmas cards are available, too

SEALS 4/- per 100
CHRISTMAS CARDS 6/- per doz. with envelopes

From the
NATIONAL ASSOCIATION FOR THE PREVENTION OF TUBERCULOSIS
Tavistock House North, London, W.C.1

"Wheelers of Plaistow"

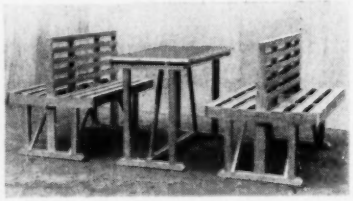
specialists in the manufacture of

OVERALLS
for
MEN
and
WOMEN
in every Trade

The "VOLE" Brand ... *DIGNIFIES THE JOB*

H. WHEELER & CO. LTD.
Overall Clothing Manufacturers
107 LONDON RD., PLAISTOW, E.13
Telephone: GRAngewood 4071

Wm. H. GORE



Second-hand reconditioned furniture and equipment for Canteens, Clubs, Offices, etc. Keenest prices. Varied selection. Chairs, Tables, Lockers, Desks, Ovens, Grills, Hot Cupboards, Urns, Mixers, Peelers, Slicers, Steamers, Boilers, Cutlery, etc. Also Tubular Stacking Chairs and Tables.

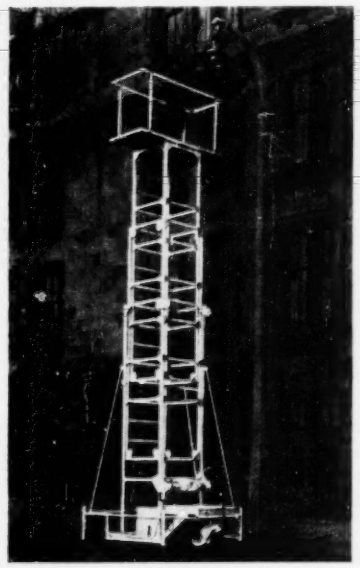
57a EASTERN AVENUE, ILFORD ESSEX *Tel.: WANstead 9586*

this device, an extra heavy and bulky package containing, for instance, industrial transformers, can be guided

and pushed along by a man standing on the platform of a petrol or electric truck.

This roller device measures 26½ in. long by 6 in. wide by 3 in. high. It is all metal and weighs about 45 lb. **(PM/573.)**

Mobile Tower Ladder



PRODUCED to overcome the difficulty of maintaining fittings which are installed high out of reach, this mobile tower ladder can be driven at a walking speed, the operator merely steering. The basis of the electric tower is a 24 volt power unit, powered by traction batteries. This power unit is mounted on a tricycle chassis which is fitted with levelling jacks, parking brakes, side lights and rubber-tyred wheels. The batteries are stowed in the centre of the chassis and can be charged overnight, the rates being pre-set and controlled automatically.

The tower frames are of aluminium alloy and telescope into each other so that when fully extended the tower is 22 ft. 6 in. high and when closed is only 9 in. high. Raising and lowering is effected by hand-operated winch gear. Mechanical safety catches and tested ropes are fitted and a safety rail is provided on the inspection platform, which rotates through 360 deg., and to reduce height for stowage the rail folds flat when not in use. The operation of this tower ladder requires only one man, and since he does not have to manhandle it, fatigue is greatly reduced. **(PM/574.)**

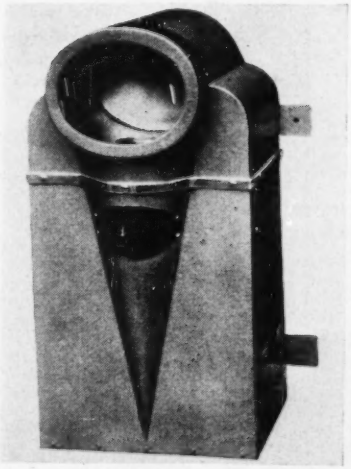
HYGIENE

For Health and Hygiene

A PNEUMATIC pressure type vaporiser, as illustrated, is available from a manufacturer of liquid disinfectants and other hygienic products. Other items in this firm's comprehensive range are, liquid washing solution, a paste cleanser (for removing grease and dirt from the hands, cleaning leather upholstery and lino, etc.), liquid toilet and carbolic soaps, soft soap and disinfectant blocks for toilets. **(PM/575.)**

Wall-mounting Dryer

USEFUL where the floor space in a cloakroom is limited, this wall-mounting model of a well-known hand dryer has recently been put on the market. Measuring 23 in. by 12 in. by 13 in., and weighing 20 lb., this dryer can be installed immediately above wash basins. It is fitted with a 1/30th h.p. universal skeleton motor and a time delay switch which prevents the machine's being left running. Consumption is 1.5 kw. **(PM/576.)**

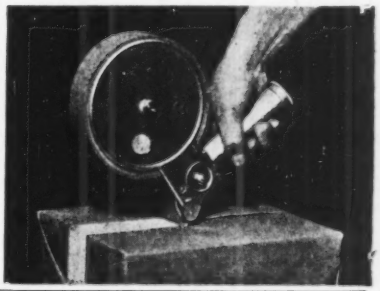


PACKING

Package Sealer

STATED to be a new development in the application of gummed tape, this portable package sealing machine is able to unwind, moisten, seal and tear off tape at any desired length in one operation, thus preventing the rolling-up of moistened pasting strips, sticky fingers and the soiling of packages which was hitherto unavoidable.

The moistening of the tape is effected automatically from the water container which is the handle of the machine. **(PM/577.)**



Everything for the Canteen

KITCHEN UTENSILS
CROCKERY · CUTLERY
CANTEEN FURNITURE
CLOTHES LOCKERS, etc.

Horwood
CATERING EQUIPMENT LTD.
177 SEVEN SISTERS ROAD, LONDON, N.4
Tel.: ARChway 1574

Summary of Official Publications

READERS' GUIDE TO ACTS, STATUTORY ORDERS, NEW RULINGS AND AWARDS CONCERNING INDUSTRY AND PERSONNEL

STATUTORY INSTRUMENTS

No. 1812. The Flax and Hemp Wages Council (Great Britain) Wages Regulation (Amendment) Order, 1952. Dated October 13, 1952, made by Minister of Labour and National Service under Section 10, Wages Councils Act, 1945(a). *H.M.S.O.* 4*d*. (Revokes Order F.H.(70), and amends Order F.H.(66) by increasing statutory minimum remuneration payable. Operative from October 27, 1952.)

No. 1830. The Control of Employment (Miscellaneous Orders) Revocation Order, 1952. Dated October 17, 1952, made by Minister of Labour and National Service under Regulation 58a, Defence (General) Regulations, 1939, the Supplies and Services (Transitional Powers) Act, 1945(a), and other extending powers. *H.M.S.O.* 2*d*. (Revokes the Dock Labour (Compulsory Registration) Order, 1940(e), Control of Employment (Directed Persons) Order, 1943(f), The Undertakings (Records and Information and Inspection of Premises) Order, 1943(g), Essential Work and Directed Persons (National Service Officers) Order, 1943(h), Dock Labour (Compulsory Registration) (Amendment) Order, 1947(i), Registration for Employment Order, 1947(j), and Control of Employment (Directed Persons) (Amendment) Order, 1948(k). Operative from November 1, 1952.)

No. 1846. The Coal Mines (Surveyors and Plans) General Regulations, 1952. Dated October 20, 1952, made by Minister of Fuel and Power under Section 86, Coal Mines Act, 1911(a). *H.M.S.O.* 4*d*. (Require the appointment of a qualified surveyor to be responsible for preparation of statutory plans of a mine. Amend requirements concerning form and content of such plans. Operative from December 15, 1952.)

No. 1847. The Coal Mines (Shallow Workings and Dangerous Deposits) General Regulations, 1952. Dated October 20, 1952, made by Minister of Fuel and Power under Section 86, Coal Mines Act, 1911(a). *H.M.S.O.* 3*d*. (Supersede Regulation 29 of the General Regulations, 1920, and require that certain precautions be taken to ascertain the existence of and guard against deposits of dangerous materials below the surface. Operative from February 15, 1953.)

No. 1862. The Shops (Revocation of Winter Closing Provisions) Order, 1952. Dated October 21, 1952, made by the Queen's Most Excellent Majesty in Council, under Section 7, Shops Act, 1950(a). *H.M.S.O.* 2*d*. (Revokes provisions of Sections 2 and 5 of the Shops Act, 1950, which prescribe special closing hours for shops in winter. General closing hours are now the same throughout the year. Operative from November 1, 1952.)

Draft. The Coal Mines (Medical Examinations) General Regulations, 1952. Dated . . . , made by Minister of Fuel and Power under Section 86, Coal Mines Act, 1911(a), and Section 10, Coal Industry Act, 1949(b). *H.M.S.O.* 3*d*. (Provide for medical examination of persons entering employment in coal mines, and prohibits employment of any person on work for which he is found unfit, or of any person who fails, without reasonable cause, to submit to examination.)

GENERAL

Careers for Men and Women. No. 30. Police and Prison Services. No. 37. Science. Issued by the Ministry of Labour and National Service. *H.M.S.O.* 6*d*. each.

Civil Defence Welfare Services in Scotland. (1) Information Centres. (2) Rest Centres. Issued by the Department of Health for Scotland. *H.M.S.O.* 1*s*. each.

INDUSTRIAL DISPUTES TRIBUNAL

AWARDS

No. 236. Wages and Conditions of Employment in the Jute Carpet Industry. Claim: For extension of sliding scale and cost of living agreement on lines laid down by the National Joint Committee for the Carpet Industry, and for observance by the Association of agreements reached by the above Committee. Award: In favour of extension of the sliding scale arrangement; but the second part of the claim was not established. (22/9/52.)

No. 237. Wages in the Jute Carpet Industry. Claim: That the wages structure of the industry should be governed by the National Joint Committee for the Carpet Industry. Award: Claim not established. (22/9/52.)

No. 238. Annual Holiday in the Packing Case Making Industry in Aberdeen and District. Claim: For an additional week's annual holiday with pay. Award: In favour of claim. (22/9/52.)

No. 239. Date from which the Terms of Employment Agreed in Respect of a Particular Worker Employed by the Dundee Corporation should Operate. Claim: That application of terms of employment agreed between the Corporation and the union should have effect from date of original claim. Award: In favour of workman. (22/9/52.)

No. 240. Salaries and Conditions of Employment of Certain Clerical Workers Employed by a Cable Making Firm in the South of England. Claim: For revised terms and conditions of employment. Award: Claim not established. (25/9/52.)

PRINTED 9·30 — 9·32 — 9·36 — 9·45 —

By means of key boxes sited at strategic points in your building, all of which the watchman must visit in turn in order to record the number of the post and the time of the visit, LLEWELLIN'S clocks provide a printed record of the time and regularity of the patrols in your building.

LLEWELLIN'S WATCHMEN'S CLOCKS

give you better protection because :—

Their simpler, more robust mechanism is more positive, completely tamper-proof. Timing of patrols can be revised without notice, every night. Visits to posts can be laid down in any order.

For full details write to:

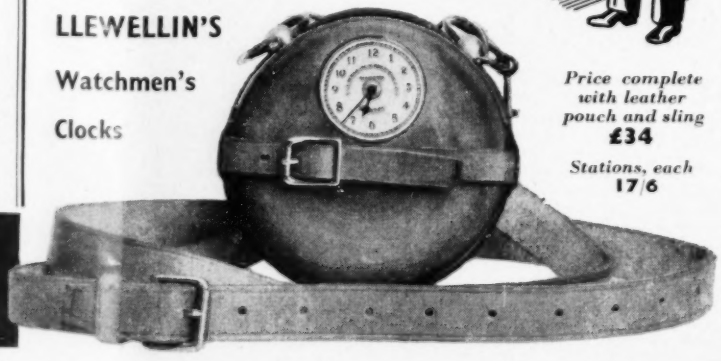
LLEWELLIN'S MACHINE CO LTD
KING SQUARE · BRISTOL 2
Telephone 20891

PROOF . . .

. . . that your premises are **SAFE** *from* **FIRE** *and* **BURGLARY,** *all night, every night*

If your watchmen carry LLEWELLIN'S watchmen's clocks, you can be SURE they make every patrol exactly at the times you order. Times can be revised from night to night so that patrols occur at irregular, unpredictable intervals — defeating the professional burglar.

LLEWELLIN'S
Watchmen's
Clocks



Price complete with leather pouch and sling
£34

Stations, each
17/6

20>42

No. 241. Remuneration of Chief Officers of the Northampton Corporation. Claim: For implementation of recommendations of the Joint Negotiating Committee for Chief Officers of Local Authorities in respect of all the Corporation's chief officers. Award: In favour of claim. (29/9/52.)

No. 242. Rates of Wages of Certain Workers Employed in the Baking Industry in the Leeds District. Claim: For minimum pay rates higher than those laid down by the Baking Wages Council. Award: Claim not established. (29/9/52.)

No. 243. Terms and Conditions of Employment of Workers Employed by a Firm of Electrical Fuse Manufacturers in London. Claim: For observation of recognised terms and conditions of employment in the engineering industry. Award: In favour of claim. (30/9/52.)

No. 244. Rates of Wages of Certain Workers Employed in the Baking Trade in Grimsby. Claim: For increases ranging from 1d. per hour for adult males to ½d. per hour for girls above the minimum rates laid down by the Baking Wages Council. Award: Claim not established. (2/10/52.)

No. 245. Remuneration of Metal Dressers Employed by an Engineering Company at Peterborough. Claim: That metal dressers should qualify for the bonus paid to skilled men. Award: Claim not established. (3/10/52.)

No. 246. Remuneration of Certain Chief Officers of the South Shields Corporation. Claim: For implementation of recommendations of the Joint Negotiating Committee for Chief Officers of Local Authorities in respect of the borough treasurer, borough engineer and surveyor and director of education. Award: In favour of claim. (6/10/52.)

No. 247. Rates of Wages of Certain Female Workers Employed by an Engineering Company at Slough. Claim: That women employed in the trim section should receive the male rate of pay in accordance with provisions of the Women's Dilution Agreement of the United Kingdom Joint Wages Board for the Vehicle Building Industry, August 26, 1941. Award: In favour of claim. (8/10/52.)

No. 248. Remuneration of Certain Clerical Workers Employed by an Engineering Firm at Uxbridge. Claim: For implementation by the company of agreement between the Engineering and Allied Employers' National Federation and the Clerical and Administrative Workers' Union, December 6, 1951. Award: In favour of claim. (10/10/52.)

No. 249. Wage Rates of Semi-skilled Machine Operators Employed by an Engineering Company at Otley. Claim: That semi-skilled machine operators should receive an increase of 11s. instead of 8s. a week under engineering agreement, November 28, 1950. Award: Claim not established. (10/10/52.)

No. 250. Remuneration of Certain Chief Officers of the Gateshead Corporation. Claim: For implementation of recommendations of the Joint Negotiating Committee for Chief Officers in respect of the borough surveyor, director of education, and borough treasurer. Award: in favour of claim. (10/10/52.)

No.251. Terms and Conditions of Employment of Certain Workers Employed by the Margate Corporation. Claim: For application of terms and conditions contained in agreements of the National Joint Council for Local Authorities' Services (Manual Workers) to chair attendants. Award: In favour of claim. (14/10/52.)

No. 252. Claim in Regard to the Grading of an Engineer Employed at a Mental Hospital in Lanarkshire, Scotland. Claim: That worker should be designated engineer-in-charge in accordance with recommendations contained in Circular 3, Professional and Technical Council B of the Whitley Councils for the Health Services (Great Britain). Award: Claim not established. (14/10/52.)

No. 253. Remuneration of Certain Chief Officers of the Stanley Urban District Council. Claim: for implementation of recommendations of the Joint Negotiating Committee for Chief Officers in respect of the chief financial officer and the engineer and surveyor. Award: In favour of claim. (14/10/52.)

No. 254. Annual Holidays in the Building and Civil Engineering Construction Industries. Claim: For an additional week's holiday with pay. Award: In favour of claim. (16/10/52.)

No. 255. Remuneration of Superintendents, Assistant Superintendents and Agents Employed by the Royal London Mutual Insurance Society Limited. Claim: For payment of a Cost-of-living bonus. Award: Claim not established. (16/10/52.)

No. 256. Salary Scales of Certain Clerical Staff Employed by an Insurance Company in Scotland. Claim: For improved salary scales. Award: Claim not established. (21/10/52.)

No. 257. Rates of Wages in the Foreign Skins Section of the Fellmongering Industry. Claim: For substantial wage increase for all workers. Award: Increase of 2d. per hour to adult male and female time-workers, and increase of 7 per cent. to youths and female workers under 21; present piecework rates also to be increased by 7 per cent. (23/10/52.)

INDUSTRIAL COURT AWARDS

No. 2415. Road Passenger Transport Industry. Reference: Dispute concerning application of terms of agreement of July, 1948, to depot inspectors. Award: That "quarterage" shall continue to be paid to all depot inspectors, in accordance with the agreement until such time as an alternative arrangement can be made. (10/10/52.)

No. 2416. National Health Service. Reference: To determine annual leave entitlement and date of operation of revised salary scales for certain professional and technical grades. Award: The Court awarded annual leave ranging from 3 to 5 weeks to operate from April, 1952; revised salary scales to operate as from May 1, 1952. (17/10/52.)

No. 2417. Constructional Engineering. Reference: Dispute concerning dismissal of a named employee and claim for reinstatement. Award: Claim not established. (23/10/52.)

No. 2418. Catering Industry. Reference: Interpretation of Industrial Court Award No. 2407, which laid down rates of pay for staff employed in National Service Hostels. Award: The Court ruled that the term "resident staff" applied to staff normally in residence when away on holiday or sick leave, and that such staff were not entitled to the increase of 5s. a week awarded to non-resident staff. (23/10/52.)

No. 2419. Printing Industry. Reference: Claim for parity of rates for comparable operatives employed in machine rooms and publishing rooms of London evening newspaper offices. Award: Claim not established. (29/10/52.)

Engage skilled staff from this vast 'pool' . . .

Staff Managers and others seeking skilled workers, for whatever industry, should bear in mind that the DAILY HERALD daily readership of over five million includes 3,250,000 men and women employed in every type of industry . . .

In Manufacturing and Industry 1,060,000; Building and Engineering 580,000; Commerce and Professional 390,000; Mining and Quarrying 280,000; Transport and Communications 270,000; Distributive Trades 250,000.

The swiftest, surest and most economical way to secure new skilled staff is to advertise for them in the classified advertisement columns of the

DAILY HERALD

Every "Daily Herald" classified advertisement appears in ALL copies, covering TOTAL circulation.

Rate 15/- per line. Communications should be addressed to: CLASSIFIED ADVERTISEMENT MANAGER,

DAILY HERALD, ACRE HOUSE, LONG ACRE, LONDON, W.C.2

Management Diary for December

Burton Manor
Dec.
7-19 "Supervisory Management."

Carlisle and District Management Association
9 "The Universities and Industry in the United States." Prof. D. T. Jacks.

Chadwick Trust
9 "The Prevention of Dust Diseases of the Lungs." Dr. A. I. G. MacLaughlin, Wright-Fleming Institute, St. Mary's Hospital Medical School, Norfolk Place, Paddington, London, W.1. 4.30 p.m.

Corporation of Secretaries
18 "Office Problems." St. Enoch Hotel, Glasgow. 7.30 p.m.
17 "Management Statistics." R. P. Robson. The Griffin Hotel, Boar Lane, Leeds 1.

Illuminating Engineering Society
3 "Brightness Engineering." W. Robinson. Minor Dunant Hall,, Oxford Street, Newcastle-on-Tyne. 6.15 p.m.
9 "Colour in Industry." J. H. Nelson. Lecture Hall, Midlands Electricity Board, 31 Kingsway, Stoke-on-Trent. 6 p.m.
16 "The Eye, Brightness and Illuminatinig Engineering." W. S. Stiles. Merseyside and North Wales Electricity Board's Service Centre, Whitechapel, Liverpool 1. 6 p.m.
17 "Brightness Engineering." W. Robinson. Cleveland Scientific and Technical Institution. Corporation Road, Middlesbrough. 6.30 p.m.

Industrial Welfare Society
1 Discussion Group for Retail Trade. 6 p.m. 48 Bryanston Square, London, W.1.
1 "How to Lead a Discussion Meeting." Leeds.
1-5 "Active Leisure." Dobson and Young. 7.30 p.m. 48 Bryanston Square, London, W.1.
5-8 "Opportunities for Management." Dunblane Hotel Hydro.
8 Discussion Group for Retail Trade. 6 p.m. 48 Bryanston Square, London, W.1
8 Advisory Meeting. Rochester.
8 "Active Leisure." Dobson and Young. Manchester.
8 Advisory Meeting. Huddersfield.
8 "Canteens—Working to a Budget." Liverpool.
9 "Introducing an Apprenticeship Training Scheme." 48 Bryanston Square, London, W.1.
10 "Helping with Personal Problems." 48 Bryanston Square, London, W.1.
11-12 Conference for Directors. London.
16 Canteen Meeting for Executives. London.

Institute of Industrial Supervisors
3 "The Supervisor and the Shop Steward." (Discussion with representatives of the N.U.V.B.) College of Technology, Suffolk Street, Birmingham. 7.30 p.m.
3 Joint Meeting with Bristol Management Institute. The University, Frome. 7.30 p.m.
4 "Testing and Selecting Apprentices." E. Low. Royal Technical College, Glasgow. 7.30 p.m.
5 "Supervisory Training." Dr. H. L. Haslegrave. College of Technology, Leicester. 7.30 p.m.
8 Meeting of Leicester and District Management Association. College of Technology, Leicester. 7.30 p.m.
9 "Industrial Law—What the Foreman Should Know." South Wales Institute of Engineers, Merthyr Tydfil. 7.30 p.m.
10 "American Foremanship Report." W. J. Izzard. The Lamb Hotel, Frome. 8 p.m.
11 Joint Meeting with the Institution of Works Managers. Polytechnic, Regent Street, London, W.1. 7.30 p.m.
11 "Labour Supply and its Problems in S.E. London." W. G. Frend. Polytechnic, Woolwich, London, S.E. 7.30 p.m.
12-14 "The Practice of Supervisory Management." Dillington House, Somerset.
16 "The Foreman and Personnel Management." J. Donaldson Palmer. County Technical College, Newark. 7.30 p.m

Institute of Personnel Management
3 "Essentials of a Good Training Scheme." W. W. Evans. 8 Hill Street, London, W.1. 8 p.m.
3 "British Management and its Future." Harry Newman. Reception Room, Bristol University. 7.15 p.m.
4 Discussion meeting for senior personnel officers. 8 Hill Street, London, W.1.
4 "Craft Industry in the Black Country." P. Drabble. Jas. Beattie Ltd., Wolverhampton. 6.30 p.m.
8 "Industrial Medicine." Dr. Ross. Station Hotel, Newcastle. 7 p.m.
11 "Leadership in Industry." Dr. E. James. Engineers Club, 17 Albert Square, Manchester. 6.30 p.m.
11 "The Role of Industrial Welfare in the Welfare State." Mrs. D. J. W. Murray. Restaurant, E. Mayes & Son, Ltd., Southampton. 7 p.m.
18 "Training of Clerical and Administrative Staff." W. S. Stanton. Co'Doro Restaurant, Union Street, Glasgow. 7 p.m.

Institution of Heating and Ventilating Engineers
8 "The Dual Function of Ventilation." A. L. Longworth. Radiant House, Bold Street. Liverpool 6.30 p.m.
12 Brains Trust. Council Chamber, Lancashire County Council, Preston. 6.30 p.m.

Institution of Production Engineers
5 "Administrative Problems of Industry." Sir Patrick Hannon. Llewellyn Hall, Y.M.C.A., St. Helen's Road, Swansea. 7.30 p.m.
8 "Legal Aspects of Factory and Production Management." H. P. Jost. The Geisha Cafe, Hertford Street, Coventry. 7.30 p.m.
8 "In the Opinion of this House a Good Production Engineering Apprenticeship is only Obtainable in a Small Firm." (Debate.) Grand Hotel, Broad Street, Bristol. 7.30 p.m.
9 "Apprentice Training." W. Heigh. Queens Hotel, Dundee. 7.30 p.m.
10 "Current Problems of Management." M. Seaman. Crown Hotel, Market Place, Blackburn. 7.15 p.m.
15 "Materials Handling." L. W. Bailey. College of Technology, Sackville Street, Manchester, 1. 7.15 p.m.
16 "Materials Handling." E. Williamson. Morris Motors Ltd., Apprentice School, Hollow Way, Cowley, Oxford. 7.15 p.m.

Institution of Works Managers
2 "The Church in Industry." Rev. E. R. Wickham. Grand Hotel, Sheffield. 7.30 p.m.
9 "Management is Quite a Job." H. Whitehead. Vane Arms Hotel, Stockton-on-Tees. 7.30 p.m.
9 "The Role of Trades Unionism in Modern Industry." A. E. Ford. Starkie House, Starkie Street, Preston. 7.30 p.m.
12 "Management and the New Industrial Society." A. P. Young. Technical College, Hall Street, George Gate, Doncaster. 7.30 p.m.
15 "Human Relations in Modern Industry." Dr. T. T. Paterson. Institution of Engineers and Shipbuilders in Scotland, 39 Elmbank Crescent, Glasgow, C.2. 7.15 p.m.
30 "Management Problems." (Brains trust) Star and Garter Royal Hotel, Wolverhampton. 7 p.m

National Institute of Industrial Psychology
1-5 Course III in Selection Methods. London.
9-10 Conference on Training. London.
12 NIIP Trained Interviewers Conference. London.
15-19 Course for Managers (Pt. II) London.

Pendley Manor
1-6 Foremen's Course.

Urchfont Manor
1-11 "Human Factor in Production."

Showcards in 10 minutes
Letter those showcards, price tickets, display matter, etc., yourself—quickly and easily with the Sagenta Textograph. Saves you time and money, requires no experience.
Write or 'phone for further details
M. & L. HAYCRAFT LTD.
24 St. Stephen's House, Westminster, S.W.1
Tel.: WHitehall 9618/9

The
BARNETT ORGANISATION
of **WOLVERHAMPTON**
offers these nation-wide services:
Heating, Ventilation and Air Conditioning; Hot and Cold Water and Gas Services; General Building work and Sectional Buildings; Canteen Equipment; Tubes and Valves and Fittings; Steel Sections, Sheets and Plates.
★ ★
Do not hesitate to contact us at:
CALITHERM HOUSE, DARLINGTON STREET, WOLVERHAMPTON. Phone: 22848, 20372. *Or at* **Midlands Area Branch Office, Enterprise House, Berry Street, Wolverhampton.** Phone: 25786, 7 and 8. Telegrams: Calitherm.

PARTY CATERING IN CENTRAL LONDON
Catering for All Occasions, Excellent Accommodation
Party Outings, Reunions, Lunches, High Teas
Dinners, Suppers
MODERATE CHARGES. SPECIMEN MENUS AVAILABLE.
TAVISTOCK RESTAURANTS LTD.
46-48 REGENT STREET, LONDON, W.1
Phone: CATERING MANAGER - - - GERrard 5928

SWITZERLAND/AUSTRIA
THE HOTEL-PLAN TRAVEL BUREAU
has a number of special tours for industrial parties to Switzerland, Austria, Italy, etc.
EXAMPLE: 15 days fully inclusive of rail, and hotel, etc., to Lake Lucerne, from £24 19s. 6d. with usual concessions to party leader. Ample spending money left for excursions.
Write for programme or a call from our representative.
245 REGENT STREET LONDON, W.1

Germs can't face Derl!

The use of Derl cuts the loss of man hours due to skin infections. This is because Derl contains Hexachlorophene, an ingredient acclaimed by the medical profession for its unique germicidal qualities.

Washing regularly with Derl will reduce the bacterial flora of the skin to a level unheard of by the use of ordinary soap.

Quickly, pleasantly, safely, Derl gets the better of germs.

ROBERTS WINDSOR

DERL

SOAP

Available in bar and liquid form, perfumed and unperfumed.

The ORIGINAL British Hexachlorophene Soap

Testing samples and literature are available and will be sent on request. *Roberts Windsor Soap Company Limited, Windsor, England*

G4

ECONOMICAL INDUSTRIAL FLOOR MAINTENANCE

Make a quick, clean sweep in your Factory with the

Fraser-Tuson

CIMEX SWALLOW

Manually operated (no motor), the "Swallow" sweeps up dust, swarf, factory litter and broken glass at a walking pace. Width of sweep 24", covers 30,000 square feet in the hour. Easily manœuvred due to the two independent rotary brushes which are adjustable to take up wear. Detachable dust container. Sturdily constructed of heavy gauge sheet steel, fitted rubber tyres, fenders and handle grips. Finished in best quality stove enamel.

Manufactured by :

Cimex-Fraser Tuson Ltd.

Head Office and Works : Farnborough, Kent — Telephone : Farnborough 849

Manchester Office : 211 Oxford Road, Manchester 13 — Telephone: Ardwick 2003

EVERY PACKER NEEDS THIS PROFIT MAKER

The HARNDEN Paper Shredder

IT MAKES PACKING MATERIAL FROM WASTE

ABSOLUTELY SAFE— REQUIRES VERY LITTLE POWER

Send for details of the wide range of SLITTING MACHINES for paper fabrics, etc.

Made by

C. A. HARNDEN LTD

Dowson Road, HYDE, Manchester

Telephone: HYDE 1010

MILLSPAUGH

UTILITY OVERALLS

H. & F. MORRIS LTD

Specialists in

ALL TYPES AND COLOURS OF MEN'S AND WOMEN'S INDUSTRIAL OVERALLS FOR EVERY INDUSTRY FROM STOCK

INDUSTRIAL GLOVES ETC.

GLOVERALL LTD

(REGD.)

COTTON, TWILL, LISLE AND STOCKINETTE A SPECIALITY ALSO LEATHER P.V.C. AND RUBBER GLOVES & APRONS

BANK CHAMBERS
39 CRICKLEWOOD BROADWAY
LONDON, N.W.2

Telephone: Gladstone 1056/7/8

TYPEWRITERS

EARN AS YOU PAY!

OUR HIRE PURCHASE

system will enable you to acquire the machine YOU want . . . New Portables or Office Models. **Remington, Olympia, Consul de Luxe, Olivetti "Scribe" Royal, Underwood, Imperial,** rebuilt machines in stock. Low Deposits, monthly payments. All machines fully guaranteed. Generous allowance made in part exchange or purchase outright.

C.O.D. if required

Ring CHA 2624/5 or BAY 8684

P.T.S. TYPEWRITER SERVICE
24 BUCHANAN BUILDINGS
HOLBORN, LONDON, E.C.1

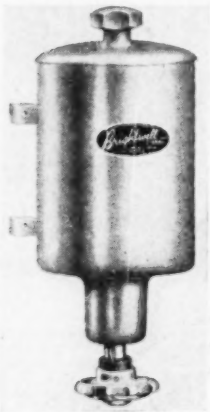
SPECIAL LINES IN

CAFE, CLUB *and* HOTEL FURNITURE

Attractive 20 in. diameter Buff Warerite top table with metal band, supplied in Walnut or light Oak colour frames **84/-**

Write for Illustrated Lists
Contracts Dept.
263/275 Holloway Rd., London, N.7.
Tel.: North 2747 (13 lines)
Now well into their second century

Jelks of Holloway PICCADILLY Ltd.



PROVEN BY THOUSANDS OF USERS

Brightwell

DISPENSERS for
★ *CREAMS*
★ *LIQUIDS*
★ *CLEANSERS*
etc.

Brightwell DISPENSERS LTD.

BRITHORN WORKS

TELSCOMBE CLIFFS, NEWHAVEN SUSSEX

Telephone: PEACEHAVEN 2335/6 (2 lines)

Harriwash Quality Products

Essentials for every Welfare Officer and Welfare Department.

HARRISPRAY Fragrant Disinfectant Spray. *Safeguard your staff* against the spread of infection. *Safeguard yourselves* against the absence of employees through colds, etc., and by stepping up production in a pleasing way.

Most efficient and economical method of atmospheric disinfection.

"Pride of quality is shared equally by producer and purchaser."

Specialities: Green and Brown Pine Disinfectants.

HARRIWASH Super Hygienic Wash for the hands.
" Liquid Toilet Soaps.
" Liquid Carbolic Soap for all cleansing.
HARRIVEG Pure Soft Soap.
DISFECTIT Disinfectant Blocks, SUPA or No. 2 for all toilets.

All enquiries to SOLE PROPRIETOR

HARRY WALSH

11 RILEY AVENUE, ST. ANNES-ON-SEA Phone: 2679 St. Annes

MARTINDALE PROTECTIVE MASKS

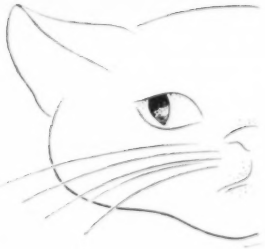
Protect your workers adequately from dust inhalation

Light and comfortable. Fit everybody perfectly. Weight ¼ oz. Allow free breathing, clear vision, use of goggles, free speech. Always clean because pad is easily replaced. Have given satisfaction for over 20 years and are the standard by which other light-weight masks are judged.

Send 4/- for Mask and 8 re-fills (Trial Sample) to

MARTINDALE ELECTRIC CO. LTD.
41 WESTMORLAND ROAD, LONDON, N.W.9

a *very* thin time *for cats*



Accurate, clean and predetermined measuring will save you gallons of milk a year! No spilling, waste or breakages—and all hygienic requirements completely fulfilled. Single lever movement gives smooth non-drip service from bottle or container. Cleaning and sterilising is simplicity itself.

no more spilt milk

NON-DRIP
milk dispenser

Non-Drip Measure Company (Proprietors: Gaskell & Chambers Ltd.)
Ellison Works · Danbrook Road · Streatham · London, S.W.16
Telephone: POLlards 4425-6-7
Export Enquiries to:
Gaskell & Chambers Ltd., Non-Drip Export Division
Dalex Works · Coleshill Street · Birmingham 4
Telephone: CENtral 8471 Cables: Gaskells, Birmingham

It's BIGGER and Better!

"Ranco"
REGD. TRADE MARK

LONGLASTING CATERERS' **PAN SCRUBS**

The large size Pan Scrub specially produced for hotel, restaurant and canteen. Send your business card or letterheading to receive a sample and price details.

NON-RUSTING AND PLIABLE

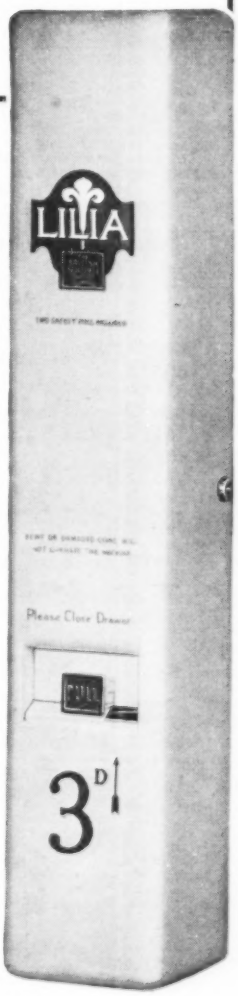
RANCO WIRES LTD. *SALES OFFICE:—*
36 WOODLANDS ROAD, LYTHAM-ST.-ANNES

THE NEW

LILIA

SANITARY TOWEL VENDING MACHINE

PROMPT DELIVERY IS OFFERED



Welfare Officers in the most up-to-date factories are installing the 'Lilia' Vending Machine in women's cloakrooms. Women employees find it so useful to buy emergency supplies of 'Lilia' by this method. It saves endless embarrassment and inconvenience.

The all-metal machine illustrated — which can be fixed in a few minutes by any mechanic — is of streamlined design with permanent white enamelled finish. It holds 20 cartons each containing one Lilia soluble towel.

LILIA

Lilia are the towels that are comfortable as well as soluble. They feel soft to the touch—they stay soft in wear.

Price **£7 . 10 . 0** Nett

Measurements: Height 35 inches. Width 6½ inches. Back to front 6 inches.

LILIA Towels 27/3 per gross nett carriage paid, minimum 2 gross.

LILIA LTD., DEPT. Z50, PARK MILL, HOLLINWOOD, OLDHAM

CLASSIFIED ADVERTISEMENTS

Read these columns for your everyday wants of all kinds

Rate: 2/6 per line, minimum 5/-; average 24 letters per line, box numbers to be paid for as 2 lines. Display panels: £1/10/- per single column inch. Series discounts: 5% for 6 insertions, 10% for 12. Payments must accompany order for single insertions. Address orders to: Advertisement Manager, PERSONNEL MANAGEMENT AND WELFARE, 180 Fleet Street, London, E.C.4. Telephone: Chancery 8844.

CANTEEN EQUIPMENT FOR SALE

CUTLERY & SILVERWARE Manufacturers offer delivery from stock, and free badging service. Quotations for replating and badging. Henry Knowles and Co., Clevedon, Nr. Bristol.

HOTELS CANTEENS CAFES
Cutlery and Silverware
at a price suitable for all classes of the Trade. Obtainable from **C. BRANDON CROSBIE & CO. LTD., Kelvin Chambers, Stafford St., Walsall Telephone: Walsall 6027-8-9.** Send for List and Samples today. **FREE BADGING SERVICE. Repairs and re-plating our speciality.** *Take the obvious advantage of dealing direct with the manufacturer.*

HOT CLOSET with bain-marie. Popular make. Stainless steel top. Sliding doors. Dimensions: 8 ft. 6 in. long, 4 ft. wide, 3 ft. 6 in. high. Little used and in very good condition. £55 or near offer. Box No. 510.

FISH RANGE taken for debt. Keen price accepted to clear; also Jackson Boiler.—A. R. C., 130 Great Portland Street, London, W.1.

REFRIGERATORS

REFRIGERATORS for sale. New and Guaranteed. 20 per cent off list price, suitable for AC or DC. Full particulars—139 Essex Road, N.1. Canonbury 2871.

INDUSTRIAL CLOTHING

UTILITY OVERALLS AND INDUSTRIAL GLOVES of every description for all industries from stock.—H. AND F. MORRIS AND GLOVERALL LTD., 30 Cricklewood Broadway, N.W.2. Tel.: GLAD. 1056/7/8.

See advertisement on page 268.

OFFICE EQUIPMENT

STAFF STEEL CLOTHES LOCKERS, available for prompt delivery, size 72 in. by 12 in. by 12 in., 15 in. by 15 in. and 18 in. by 18 in. Warehouse steel shelving, stock sizes available and made to order. Steel Filing Cabinets Roneodex, Kardex Cabinets available in popular sizes.—Write COMMERCIAL EQUIPMENT CO., 2 Highgate Road, N.W.5. GULiver 2709. Also 68-70 Queen Street, E.C.4.

DICTAPHONE Outfit, £35.—HOLDINGS, 39 Mincing Lane, Blackburn.

BUSY EXECUTIVES—Save money, time and fatigue when on the telephone. Send a card for a free demonstration (or details) without any obligation to: ATLAS ELECTRO-EFFICIENCY PRODUCTS, 11 Garrick Avenue, London, N.W.11. Tel.: Speedwell 5330.

METERS

METERS, A.C. and D.C., new and reconditioned, all types. Quarterly, single- and three-phase, 3- and 4-wire, 2½ to 1,000 amps. Prepayment, single and double tariff, single, dual and triple coin, fixed and variable tariff, 2½ to 50 amps. M.D.I. billiard switches, rent collectors. Prices from 5s. Carriage paid, guaranteed for ever. Immediate delivery. Illustrated catalogue from THE ELECTRIC METER CO., Castor Road, Brixham.

HEATING

FREE ADVICE ON your Heating. Our representative will call and advise without obligation on heating your works, office or home with Hurseal oil-filled electric, gas, liquid gas, and paraffin-operated radiators and other fuel-saving equipment. Write or phone now. —HURSEAL LTD., 229 Regent Street, W.1. REG. 1051.

LIGHTING

FLUORESCENT LIGHTING (Industrial). 5 ft., 80 w. Price complete 95/-. Guaranteed. Leaflets from ELECTRICAL PRODUCTS CO., 55 Long Lane, London, E.C.1. Tel.: MON. 1907.

CHRISTMAS, CARNIVAL & CORONATION NOVELTIES

CARNIVAL Novelties, toys at wholesale prices. Catalogue from FANFARE, 135 Canterbury Road, N.W.6. Tel.: MAI. 1551.

CHRISTMAS & CORONATION CELEBRATIONS Everything supplied to make the occasion successful. Hats, balloons, novelties, toys, souvenirs, decorations, fireworks. Stamp for wholesale catalogue.—SWINNERTON'S LTD., Wisemore, Walsall.

CORONATION DECORATIONS. Flags, Shields, Pennants, Streamers, etc. Send s.a.e. for list.—MASSMANN (LONDON) LTD., 313 Balham High Road, London, S.W.17.

ELLISDONS
NEW BIG BUMPER CATALOGUE
Containing over 1,000 items
NOVELTIES, JOKES, TRICKS, PUZZLES, MAGIC, TOYS and GAMES, etc.
Send 1½d. stamp for postage:
ELLISDONS
246 High Holborn, London, W.C.1
(Near Holborn Tube, 2 doors from old Holborn Empire next to Pearl Assurance Building)

BOOKS

BOOKFARE WELFARE— We specialise in providing workers with first-class reading entertainment at cost—no instalment or maintenance charges—free trial if desired. For full details write to: REX LIBRARY SERVICE (S), 135a Goswell Road, London, E.C.1. CLE. 0351.

TOILET SUPPLIES

TOILET ROLL MANUFACTURER offers special terms. Savings of over 33⅓ per cent assured by buying direct. Free samples and quotation by return—six dozen and over delivered free.—NEATEX TOILET PRODUCTS, Wern Mills, Nannerch, N. Wales.

PENDLEBURY PAINTING AND LIMEWASHING COMPANY
FACTORY, WAREHOUSE, OFFICE AND CINEMA
DECORATIONS
678 Bolton Rd., Pendlebury, Lancs
TELEPHONE:
RADcliffe 2710 and SWInton 1623

COMMERCE

BRITISH SOCIETY OF COMMERCE. A world-wide professional organisation for all engaged in commerce. Designation F.B.S.C. Write Secretary, 74 King Street, Wigan 15.

HARRY the CARTER

The musical Farmer's Boy—In his popular Somerset Yokel Act—a happy combination of light comedy and tuneful music for voice and 'cello

. . . will help you to make your Staff Party, Social, Dinner, etc. a success. Available as a single act or will produce a complete programme with other London artistes. Terms by arrangement, to suit the occasion.

Send your enquiry now to
Harry Carter, Pinehurst, Broadmoor, Abinger Common Nr. Dorking, Surrey. Telephone: Abinger 368

FACTORY ACT REQUIREMENTS

Supply your workers with "DELCO"
LIQUID TOILET SOAP
Used in Corporation Departments, Railway Transport and Public Utility Undertakings, Offices, Canteens, R.A.F. & R.O.F. Factories, etc.
HYGIENIC ANTISEPTIC ECONOMIC
Samples and Quotations on application
Tip-up Dispensers Supplied
(Please Quote this Journal).

W. M. DELF (LIVERPOOL) LTD.
SOAP AND DISINFECTANT MANUFACTURERS
DELCO WORKS, LIVERPOOL, 9.
PHONE: AINTREE 1752 (2 LINES) 'GRAMS: "HELFMATE," LIVERPOOL

But what about my high-speed jets?

One of the most practical advantages of gas is the speed with which it gets into action. With gas there is no long waiting and warming-up process — its full heat is available day and night at the turn of a tap. And in the same way there is no waste of heat or fuel at the end of a job. Such speed is worth minutes every working hour — and hundreds of pounds a year.

Mr. THERM
HELPS IN WELFARE WORK

He is a great help in factory heating, steam raising, water heating, the equipment of first aid rooms, water heating in sports pavilions, cooking and dish-washing in canteens.

Mr. Therm burns to serve you · THE GAS COUNCIL · 1 GROSVENOR PLACE · LONDON · S W 1

ACTUALLY WE DON'T RECOMMEND THIS EXPERIMENT, because even solid Stainless Steel can be dented. But that's about all the harm you can do to Olde Hall Tableware! No cracking, chipping or smashing, for instance, and no soldered parts to break off. So think of the saving in replacement costs when you equip with "Olde Hall".

As to appearance, "Olde Hall" has it on all counts. Beautiful designs, in modern or traditional styles; no plating to wear away; and a surface which comes up like diamonds as you dry it—year after year.

Note again, "Olde Hall" is untarnishable (important in Vegetable Dishes), and the vessels for hot liquids have ingenious "Staycool" handles which really do not get hot.

Handsome, hygienic, almost indestructible, and a joy to clean, "Olde Hall" brightens the lives of all concerned—management, staff and workers.

Olde Hall

STAINLESS STEEL
Tableware

J. & J. WIGGIN LIMITED · 2 WOODHALL STREET · BLOXWICH · WALSALL

W.T.22.D.

Printed for the Proprietors, The Shaw Publishing Co. Ltd., 180 Fleet Street, E.C.4 (CHA.8844), by the Sidney Press Limited, London and Bedford. December, 1952. Advertisement and Editorial Office, 180 Fleet Street, London, E.C.4.